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SOIL VAPOR INVESTIGATION

SAUGET AREA 1
SAUGET, ILLINOIS

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1.0 INTRODUCTION

This report summarizes the Soil Vapor Intrusion Investigation (SVII) activities performed at the Area 1 site in Sauget, Illinois. The SVII work was performed in accordance with the Sauget Area 1 Soil Vapor Intrusion Investigation Work Plan that was approved by the U.S. Environmental Protection Agency (USEPA). The deviations from the Work Plan are identified and discussed in the report.

Soil vapor sampling was carried out around four structures within the Sauget Area 1 site between November 29th to December 11th, 2006 (Figure 1). Field work was delayed from November 30th to December 4th due to wet weather conditions. Sampling was suspended in accordance with the Work Plan and with USEPA guidance documents recommending that soil vapor sampling should not be performed following heavy precipitation because of the potential to draw soil moisture into the sampling container during purging and sampling. The sampling activities included soil vapor samples from three locations at the Sauget Village Hall (Figure 2); three locations at the Wiese, Inc. facility (Figure 3); one location at a guard shack at the entrance to the Cerro Flow Products, Inc. container storage area (Figure 4); and three locations at the Cerro Flow Products, Inc. Control Center (Figure 5). The soil vapor sampling probes were installed within fifteen feet of exterior building walls at each of the selected locations. This report summarizes the work performed during the SVII, and includes attached figures, tables and appendices.

2.0 SOIL VAPOR SAMPLING ACTIVITIES

2.1 Soil Vapor Probe Installation

Soil vapor probes were installed using an Art's Manufacturing & Supply, Inc. (AMS, Inc.) Gas Vapor Probe (GVP) kit. Teflon® tubing (3/16th-inch inner diameter) was threaded through a 5/8th-inch inner diameter steel drive tube and attached to a dedicated GVP tip prior to probe advancement. If pavement was present at the vapor probe location, an electric rotary impact hammer with concrete bit was used to drill through the pavement. A manual slide hammer was then used to advance the vapor probes to the desired sampling depths for each vapor probe location (Table 1). Once the desired depth was reached, the steel drive tubes were retracted out of the ground using a mechanical jack. Care was taken not to disturb the connection between the tubing and GVP tip by keeping constant downward force on the Teflon tubing as the steel drive tubes were retracted.

Once the drive tubes were retracted, the annulus around the GVP tip and tubing were backfilled with approximately six inches of clean silica sand to cover the tip. The remainder of the annulus was then backfilled with granular bentonite and hydrated with potable water for at least 20 minutes. A surface seal of hydrated bentonite was constructed at each vapor probe location in order to prevent atmospheric air entry into the sampling tube during purging and sampling. Photo documentation of each sample location is attached as Appendix A.

Upon installation of the probe, a certified clean valve with 3/16th-inch hose barbs was attached to the end of the tubing in order to prevent exposure to the atmosphere. A clear plastic tote was used as a shroud for helium leak testing and placed over each vapor probe location. Hydrated bentonite was used to create a seal between the shroud and the ground surface surrounding the probe. Once the bentonite was hydrated for at least 20 minutes, purging and leak testing of the sampler assembly commenced.

2.2 Purging and Leak Testing

Following installation, each probe sampling point and associated tubing was purged by removing three probe volumes at a rate of 100 ml/min using a Gillian® GilAir-3 sample pump with a low-flow module. A probe volume was calculated as the volume enclosed in the used length of 3/16th-inch inner diameter tubing for a given vapor probe location. All probe volumes and purge durations were noted on sample collection forms (Appendix C). Once two probe volumes were purged from the sample train, a third probe volume was purged during helium leak testing.

During leak testing, ultra-high purity helium was pumped into the clear plastic tote around the vapor probe location. Helium concentrations were monitored using a Dielectric® MGD-2002 helium detector which has a detection range of 15 ppm to 1,000,000 ppm (100%) helium. Once a helium atmosphere of at least 50 percent was reached, the helium detector probe was inserted into the exhaust port of the Gilian® GilAir-3 air sampling pump. A third

and final probe volume was purged from the sample train while monitoring helium concentrations in the purged air. Helium concentrations measured in the purged air from each probe were below the 5% helium detection level and, therefore, soil vapor sampling at each vapor probe location was commenced immediately following helium leak testing.

2.3 Soil Vapor Sampling

Following successful helium leak testing, a dedicated six-liter Summa® canister and corresponding flow controller were used for sampling at each vapor probe location. Serial numbers were recorded on the sample collection form (Appendix B). The brass cap of the Summa canister was removed and the vacuum was checked in order to confirm a vacuum pressure greater than 25 inches of mercury prior to sampling. Once sufficient vacuum was confirmed, the Summa canister and corresponding flow controller were attached to each other with laboratory-supplied stainless steel Swagelok® fittings. Next, the sample train was attached to the flow controller and Summa canister with stainless steel Swagelok® fittings provided by the laboratory. Once all fittings were firmly tightened, the certified clean valve and the Summa® canister valve were opened.

An initial vacuum and a sampling start time for each location were recorded on a sample collection form (Appendix B). Canister vacuum and general observations were noted on the sample collection form every ten minutes until the vacuum gauge indicated five inches of mercury remaining. At that point, the Summa® canister was closed, the brass cap was replaced on the canister, and the sample end time and final vacuum were noted on the sample collection form.

An equipment blank and a field duplicate sample were collected as quality assurance/quality control (QA/QC) samples. Laboratory supplied stainless steel Swagelok® fittings were used to assemble the sample trains for both the Field Duplicate and Equipment Blank. The field duplicate was collected at sampling point SV-7 using a laboratory supplied stainless steel tee which split the soil vapor flow between two Summa® canisters simultaneously. When the vacuum gauge on the SV-7 probe and the duplicate both read five inches of mercury, each sample was separated. The equipment blank was collected at sampling location SV-4 using laboratory-supplied Zero Air as the sample vapor, a 2.5 feet length of Teflon® tubing, and a laboratory supplied certified clean valve in the sample train. Three probe volumes were purged from the equipment blank sample train prior to sampling. The certified clean valve and Summa® canister were then opened and initial vacuum and sample time were recorded on the sample collection form. Vacuum readings were recorded every 10 minutes until the Summa® canister vacuum was five inches mercury. Final vacuum and end sample time were then recorded on the sample collection form (Appendix B).

Each sample Summa® canister was listed on a chain of custody and packed on-site following standard chain-of-custody protocols. The samples were shipped overnight to Air Toxics Ltd. via Federal Express for T0-15 Modified Hi-Lo analyses, per the Work Plan.

After sampling was performed at each location, the sample train tubing was pulled from the ground and the remaining hole was backfilled with bentonite which was then hydrated. The surface was then restored with the original materials (soil, concrete or asphalt). All non-dedicated sampling equipment (e.g., probe rods) was decontaminated between sample locations with Liquinox® and distilled water and allowed to dry after rinsing. All used decontamination water was stored in 55-gallon drums and taken to Site R investigation derived waste storage area.

3.0 SOIL VAPOR SAMPLE RESULTS

The ten soil vapor samples and two associated QA/QC samples were analyzed by Air Toxics Ltd. for VOCs (USEPA Method TO-15 Modified Hi/Lo Full Scan). Data validation was performed following the requirements of Section 4.0 of the *Sampling and Analysis Plan/Quality Assurance Plan for Sauget Area 1 Soil Vapor Investigation* included in the Work Plan. There were some minor concerns that required the qualification of some data:

- Several constituents were detected in the equipment blank sample. As a result, professional judgment was used to qualify detections of these constituents in the investigative samples. When so detected, positive results less than 5 times the concentration detected in the blank sample were qualified as estimated values (J).
- Laboratory control samples (LCS) are generated to provide information on the accuracy of method and laboratory performance. Various VOC compounds were above the acceptance limits for the LCS. As a result, positive results were qualified as estimated values (J).

There were no major concerns which required the rejection of data. However, Air Toxics Ltd. advised Golder of an instrumentation error on the low level scan for sample SV-2. The laboratory indicated that SV-2 had been loaded incorrectly on the analytical instrumentation and that low level results for this sample could not be provided. As a result, work orders 0611634 A & B were re-issued by the laboratory.

Sample SV-3 contained concentrations of analytes that were too high for low level analysis. Sample dilutions were necessary in samples SV-1, SV-2, SV-3 and SV-8 due to high levels of target analytes and matrix interference. As a result, reporting limits for SV-1, SV-2, SV-3 and SV-8 were higher than the limits shown in Table C-4 of the *Work Plan*. A summary of validated analytical results is included in Table 2, and laboratory analytical reports are attached as Appendix C.

4.0 SIGNATURES

Please contact us if you have any questions regarding this work or require additional information.

Sincerely,

GOLDER ASSOCIATES INC.

Justin C. White, E.I.T.
Staff Engineer

For

Mark N. Haddock, P.E., R.G.
Project Manager

Robert M. Glazier, P.G.
St. Louis Operations Manager, Principal

TABLES

Table 1
Soil Vapor Sample Location Summary
Soil Vapor Sampling Investigation
Sauget Area 1
Sauget, Illinois

Sample Name	Sample Location	Sample Date	Sample Depth (ft BGS[1])	Samplers
SV-1	Wiese Inc.	11/29/2006	5.1	JCW/MNH
SV-2	Wiese Inc.	11/29/2006	5.0	JCW/MNH
SV-3	Wiese Inc.	12/4/2006	5.0	JCW/MRF
SV-4	Cerro Flow Inc.	12/11/2006	5.1	JCW/MRF
SV-5	Cerro Flow Inc.	12/5/2006	0.8	JCW/MRF
SV-6	Cerro Flow Inc.	12/5/2006	1.3	JCW/MRF
SV-7	Cerro Flow Inc.	12/6/2006	1.8	JCW/MRF
SV-8	Sauget Village Hall	12/9/2006	11.1	JCW/SRS
SV-9	Sauget Village Hall	12/9/2006	11.1	JCW/SRS
SV-10	Sauget Village Hall	12/9/2006	11.0	JCW/SRS

[1] - BGS; below ground surface
[2] - JCW - Justin White
[3] - MRF - Matt Foresman
[4] - MNH - Mark Haddock

Table 2
Summary of Soil Vapor Analytical Detections
Soil Vapor Sampling Investigation
Sauget Area 1
Sauget, Illinois

Sample Location		SV-1		Rpt. Limit	SV-2		Rpt. Limit	SV-3		Rpt. Limit	SV-4		Rpt. Limit	SV-5		Rpt. Limit	SV-6		Rpt. Limit
Date Sampled		11/29/2006			11/29/2006			12/4/2006			12/11/2006			12/5/2006			12/5/2006		
Time Sampled		12:08			15:48			13:22			12:48			13:15			16:32		
Dilution Factor		80.5			26.8			397			1.49			1.55			1.44		
TO-15 Modified Hi/Lo Full Scan																			
Analyte	**CAS No.**	**(ppbv)**			**(ppbv)**			**(ppbv)**			**(ppbv)**			**(ppbv)**			**(ppbv)**		
Freon 12	75-71-8	<40		40	<13		13	<200		200	**0.49**		0.15	**0.53**		0.16	**0.57**		0.14
Freon 114	76-14-2	<40		40	<13		13	<200		200	<0.15		0.15	<0.16		0.16	<0.14		0.14
Chloromethane	74-87-3	<160		160	<54		54	<790		790	**0.20**		0.15	**0.27**		0.16	**0.22**		0.14
Vinyl Chloride	75-01-4	**9100**		40	**1200**		13	**9400**		200	<0.15		0.15	<0.16		0.16	**3.0**		0.14
1,3-Butadiene	106-99-0	<40		40	<13		13	<200		200	**2.5**		0.15	**0.22**		0.16	<0.14		0.14
Bromomethane	74-83-9	<40		40	<13		13	<200		200	<0.15		0.15	<0.16		0.16	<0.14		0.14
Chloroethane	75-00-3	<40		40	<13		13	<200		200	**0.28**	J	0.15	<0.16		0.16	<0.14		0.14
Freon 11	75-69-4	<40		40	<13		13	<200		200	**0.28**	J	0.15	**0.17**	J	0.16	**0.27**	J	0.14
Ethanol	64-17-5	<160		160	<54		54	<790		790	<0.74		0.74	**1.0**	J	0.78	**1.2**	J	0.72
Freon 113	76-13-1	<40		40	<13		13	<200		200	**0.20**		0.15	<0.16		0.16	**0.18**		0.14
1,1-Dichloroethene	75-35-4	<40		40	<13		13	<200		200	<0.15		0.15	<0.16		0.16	**0.26**		0.14
Acetone	67-64-1	<160		160	<54		54	<790		790	**15**	J	0.74	**8.7**	J	0.78	**6.2**	J	0.72
2-Propanol	67-63-0	<160		160	<54		54	<790		790	<0.74		0.74	<0.78		0.78	**1.0**	J	0.72
Carbon disulfide	75-15-0	<40		40	<13		13	**260**		200	**35**		0.74	<0.78		0.78	<0.72		0.72
Methylene Chloride	75-09-2	<40		40	<13		13	<200		200	<0.30		0.30	<0.31		0.31	<0.29		0.29
Methyl tert-Butyl Ether	1634-04-4	<40	UJ	40	<13	UJ	13	<200		200	<0.15	UJ	0.15	<0.16		0.16	<0.14		0.14
trans-1,2-Dichloroethene	156-60-5	**78**		40	<13		13	<200		200	<0.15		0.15	<0.16		0.16	<0.14		0.14
Hexane	110-54-3	**960**		40	**2200**		13	**2200**		200	**25**		0.15	**3.8**		0.16	**0.23**		0.14
1,1-Dichloroethane	75-34-3	<40		40	<13		13	<200		200	**1.7**		0.15	<0.16		0.16	**5.5**		0.14
2-Butanone (Methyl Ethyl Ketone)	78-93-3	<40		40	<13		13	<200		200	**2.8**	J	0.15	**0.78**	J	0.16	**0.76**	J	0.14
cis-1,2-Dichloroethene	156-59-2	**2800**		40	**51**		13	**2500**		200	<0.15		0.15	<0.16		0.16	**25**		0.14
Tetrahydrofuran	109-99-9	<40		40	<13		13	<200		200	<0.74		0.74	<0.78		0.78	<0.72		0.72
Chloroform	67-66-3	<40		40	<13		13	<200		200	<0.15		0.15	**4.1**		0.16	**0.68**		0.14
1,1,1-Trichloroethane	71-55-6	<40		40	<13		13	<200		200	**3.6**		0.15	**0.58**		0.16	**9.9**		0.14
Cyclohexane	110-82-7	**260**		40	**530**		13	**760**		200	**16**		0.15	**1.8**		0.16	**0.35**		0.14
Carbon Tetrachloride	56-23-5	<40		40	<13		13	<200		200	<0.15		0.15	<0.16		0.16	<0.14		0.14
2,2,4-Trimethylpentane	540-84-1	N/A		N/A	N/A		N/A	**4600**		200	N/A		N/A	N/A		N/A	N/A		N/A
Benzene	71-43-2	**920**		40	**240**		13	**13000**		200	**8.2**		0.15	**1.1**	J	0.16	**0.42**	J	0.14
1,2-Dichloroethane	107-06-2	N/A		N/A	<13		13	<200		200	N/A		N/A	N/A		N/A	N/A		N/A
Heptane	142-82-5	**190**		40	**650**		13	**500**		200	**7.1**		0.15	**2.0**		0.16	**0.28**		0.14
Trichloroethene	79-01-6	N/A		N/A	**64**		13	**1800**		200	N/A		N/A	N/A		N/A	N/A		N/A
1,2-Dichloropropane	78-87-5	<40		40	<13		13	<200		200	<0.15		0.15	<0.16		0.16	<0.14		0.14
1,4-Dioxane	123-91-1	<160		160	<54		54	<790		790	<0.15		0.15	<0.16		0.16	<0.14		0.14
Bromodichloromethane	75-27-4	<40		40	<13		13	<200		200	<0.15		0.15	<0.16		0.16	<0.14		0.14
cis-1,3-Dichloropropene	10061-01-5	<40		40	<13		13	<200		200	<0.15		0.15	<0.16		0.16	<0.14		0.14
4-Methyl-2-pentanone	108-10-1	<40		40	<13		13	<200		200	**0.61**	J	0.15	**0.23**	J	0.16	<0.14		0.14
Toluene	108-88-3	**76**		40	**82**		13	**7200**		200	**8.7**		0.15	**2.7**		0.16	**7.7**		0.14
trans-1,3-Dichloropropene	10061-02-6	<40		40	<13		13	<200		200	<0.15		0.15	<0.16		0.16	<0.14		0.14
1,1,2-Trichloroethane	79-00-5	<40		40	<13		13	<200		200	<0.15		0.15	<0.16		0.16	<0.14		0.14
Tetrachloroethene	127-18-4	**130**		40	**56**		13	**5700**		200	**0.28**		0.15	<0.16		0.16	**31**		0.14
2-Hexanone	591-78-6	<160		160	<54		54	<790		790	<0.74		0.74	<0.78		0.78	<0.72		0.72
Dibromochloromethane	124-48-1	<40		40	<13		13	<200		200	<0.15		0.15	<0.16		0.16	<0.14		0.14
1,2-Dibromoethane (EDB)	106-93-4	N/A		N/A	<13		13	<200		200	N/A		N/A	N/A		N/A	N/A		N/A
Chlorobenzene	108-90-7	**340**		40	**1600**		13	**70000**		200	<0.15		0.15	<0.16		0.16	<0.14		0.14
Ethylbenzene	100-41-4	<40		40	**61**		13	**680**		200	**1.3**		0.15	**0.73**		0.16	**0.87**		0.14
m,p-Xylene	108-38-3/106-42-3	<40		40	**76**		13	**640**		200	**2.0**	J	0.15	**0.84**	J	0.16	**2.4**	J	0.14
o-Xylene	95-47-6	<40		40	**37**		13	**210**		200	**0.83**	J	0.15	**0.31**	J	0.16	**0.59**	J	0.14
Styrene	100-42-5	<40		40	<13		13	<200		200	**0.22**		0.15	<0.16		0.16	<0.14		0.14
Bromoform	75-25-2	<40		40	<13		13	<200		200	<0.15		0.15	<0.16		0.16	<0.14		0.14
Cumene	98-82-8	<40		40	<13		13	<200		200	<0.15		0.15	<0.16		0.16	<0.14		0.14
1,1,2,2-Tetrachloroethane	79-34-5	N/A		N/A	<13		13	<200		200	N/A		N/A	N/A		N/A	N/A		N/A
Propylbenzene	103-65-1	<40		40	<13		13	<200		200	**0.14**	J	0.15	<0.16		0.16	<0.14		0.14
4-Ethyltoluene	622-96-8	<40		40	**16**		13	<200		200	**0.49**	J	0.15	**0.15**	J	0.16	**0.30**	J	0.14
1,3,5-Trimethylbenzene	108-67-8	<40		40	<13		13	<200		200	**0.45**		0.15	**0.20**		0.16	**0.24**		0.14
1,2,4-Trimethylbenzene	95-63-6	<40		40	<13		13	<200		200	**0.85**	J	0.15	**0.30**	J	0.16	**0.53**	J	0.14
1,3-Dichlorobenzene	541-73-1	**82**		40	<13		13	**600**		200	<0.15		0.15	<0.16		0.16	<0.14		0.14
1,4-Dichlorobenzene	106-46-7	**180**		40	**100**		13	**6900**		200	<0.15		0.15	<0.16		0.16	<0.14		0.14
alpha-Chlorotoluene	100-44-7	<40		40	<13		13	<200		200	<0.15		0.15	<0.16		0.16	<0.14		0.14
1,2-Dichlorobenzene	95-50-1	<40		40	**300**		13	**8100**		200	<0.15		0.15	<0.16		0.16	<0.14		0.14
1,2,4-Trichlorobenzene	120-82-1	<160		160	**170**		54	<790		790	<0.74		0.74	<0.78		0.78	<0.72		0.72
Hexachlorobutadiene	87-68-3	<160		160	<54		54	<790		790	<0.74		0.74	<0.78		0.78	<0.72		0.72
Naphthalene	91-20-3	<160		160	**3200**	D	640	<790		790	**21**	J	0.74	<0.78		0.78	<0.72		0.72
1,1,1,2-Tetrachloroethane	630-20-6	<160		160	<54		54	<790		790	<0.74		0.74	<0.78		0.78	<0.72		0.72
1,2,3-Trichloropropane	96-18-4	<160		160	<54		54	<790		790	<0.74		0.74	<0.78		0.78	<0.72		0.72
Acetonitrile	75-05-8	<400		400	<130		130	<2000		2000	<0.74		0.74	<0.78		0.78	<0.72		0.72
Butylbenzene	104-51-8	<160		160	<54		54	<790		790	<0.74		0.74	**0.97**		0.78	**1.7**		0.72
Dibromomethane	74-95-3	<160		160	<54		54	<790		790	<0.74		0.74	<0.78		0.78	<0.72		0.72
Ethyl Acetate	141-78-6	<160		160	<54		54	<790		790	<0.74		0.74	<0.78		0.78	<0.72		0.72
sec-Butylbenzene	135-98-8	<160		160	<54		54	<790		790	<0.74		0.74	<0.78		0.78	<0.72		0.72
Vinyl Acetate	108-05-4	<160		160	<54		54	<790		790	<3.0		3.0	<3.1		3.1	<2.9		2.9
TO-15 Low Level																			
Dilution Factor		16.1			N/A			N/A			1.49			1.55			1.44		
Trichloroethene	79-01-6	**72**		0.32	N/A		N/A	N/A		N/A	**0.54**		0.030	**20**		0.031	**22**		0.029
1,2-Dichloroethane	107-06-2	<0.32		0.32	N/A		N/A	N/A		N/A	<0.030		0.030	<0.031		0.031	<0.029		0.029
1,2-Dibromoethane (EDB)	106-93-4	<0.32		0.32	N/A		N/A	N/A		N/A	<0.030		0.030	<0.031		0.031	<0.029		0.029
1,1,2,2-Tetrachloroethane	79-34-5	<0.32		0.32	N/A		N/A	N/A		N/A	<0.030		0.030	<0.031		0.031	<0.029		0.029

Results in **bold** denote detections.
The Duplicate is associated with SV-7.
Flags and Qualifiers
J - Result is an estimated value.
N/A - Not analyzed.
UJ - Estimated reporting limit.
D - Diluted sample

Checked by: JAP Date: 1/25/2007
Reviewed by: MNH Date: 1/25/2007

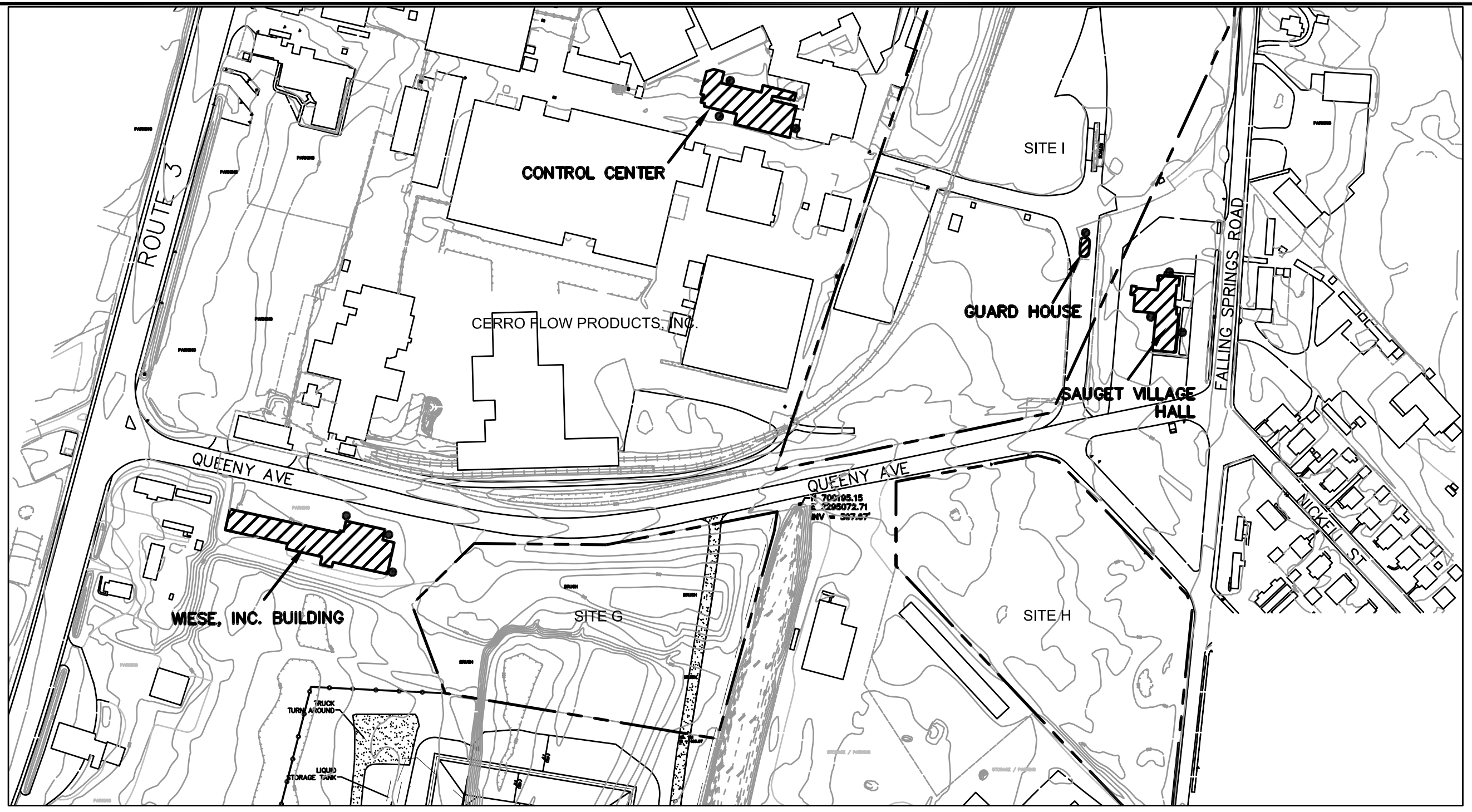
Table 2
Summary of Soil Vapor Analytical Detections
Soil Vapor Sampling Investigation
Sauget Area 1
Sauget, Illinois

Sample Location		SV-7	Rpt. Limit	SV-8	Rpt. Limit	SV-9	Rpt. Limit	SV-10	Rpt. Limit	Equipment Blank	Rpt. Limit	Duplicate	Rpt. Limit
Date Sampled		12/6/2006		12/9/2006		12/9/2006		12/9/2006		12/11/2006		12/6/2006	
Time Sampled		11:29		11:24		14:46		16:54		12:30		11:29	
Dilution Factor		1.58		4.97		1.46		1.46		1.52		1.61	
TO-15 Modified Hi/Lo Full Scan													
Analyte	**CAS No.**	**(ppbv)**		**(ppbv)**		**(ppbv)**		**(ppbv)**		**(ppbv)**		**(ppbv)**	
Freon 12	75-71-8	**0.56**	0.16	<0.50	0.50	**0.48**	0.15	**0.56**	0.15	<0.15	0.15	**0.60**	0.16
Freon 114	76-14-2	<0.16	0.16	<0.50	0.50	<0.15	0.15	<0.15	0.15	<0.15	0.15	<0.16	0.16
Chloromethane	74-87-3	**0.18**	0.16	**0.54**	0.50	**0.44**	0.15	**0.41**	0.15	<0.15	0.15	<0.16	0.16
Vinyl Chloride	75-01-4	<0.16	0.16	**0.51**	0.50	<0.15	0.15	<0.15	0.15	<0.15	0.15	<0.16	0.16
1,3-Butadiene	106-99-0	<0.16	0.16	**1.3**	0.50	**4.3**	0.15	**3.8**	0.15	<0.15	0.15	<0.16	0.16
Bromomethane	74-83-9	<0.16	0.16	<0.50	0.50	<0.15	0.15	<0.15	0.15	<0.15	0.15	<0.16	0.16
Chloroethane	75-00-3	<0.16	0.16	<0.50	0.50	<0.15	0.15	<0.15	0.15	<0.15	0.15	<0.16	0.16
Freon 11	75-69-4	**0.26** J	0.16	<0.50	0.50	**0.28**	0.15	**0.38** J	0.15	**0.17**	0.15	**0.24** J	0.16
Ethanol	64-17-5	**1.7** J	0.79	**35**	2.5	**2.1** J	0.73	**4.2** J	0.73	**5.4**	0.76	**1.8** J	0.80
Freon 113	76-13-1	<0.16	0.16	<0.50	0.50	<0.15	0.15	**0.15**	0.15	<0.15	0.15	<0.16	0.16
1,1-Dichloroethene	75-35-4	<0.16	0.16	<0.50	0.50	<0.15	0.15	<0.15	0.15	<0.15	0.15	<0.16	0.16
Acetone	67-64-1	**12** J	0.79	**37** J	2.5	**43** J	0.73	**39** J	0.73	**16**	0.76	**12** J	0.80
2-Propanol	67-63-0	<0.79	0.79	**2.8** J	2.5	<0.73	0.73	**0.93** J	0.73	**7.5**	0.76	<0.80	0.80
Carbon disulfide	75-15-0	**1.1** J	0.79	**8.9** J	2.5	**5.6** J	0.73	**7.1** J	0.73	**2.1**	0.76	<0.80	0.80
Methylene Chloride	75-09-2	<0.32	0.32	**44**	0.99	**1.7**	0.29	**1.7**	0.29	<0.30	0.30	<0.32	0.32
Methyl tert-Butyl Ether	1634-04-4	<0.16	0.16	<0.50	0.50	<0.15	0.15	<0.15	0.15	<0.15 UJ	0.15	<0.16	0.16
trans-1,2-Dichloroethene	156-60-5	<0.16	0.16	<0.50	0.50	<0.15	0.15	<0.15	0.15	<0.15	0.15	<0.16	0.16
Hexane	110-54-3	**2.5**	0.16	**140**	0.50	**9.4**	0.15	**6.0**	0.15	<0.15	0.15	**2.6**	0.16
1,1-Dichloroethane	75-34-3	<0.16	0.16	<0.50	0.50	<0.15	0.15	<0.15	0.15	<0.15	0.15	<0.16	0.16
2-Butanone (Methyl Ethyl Ketone)	78-93-3	**0.81** J	0.16	**9.9** J	0.50	**7.9** J	0.15	**3.6** J	0.15	**2.2**	0.15	**0.74** J	0.16
cis-1,2-Dichloroethene	156-59-2	<0.16	0.16	<0.50	0.50	<0.15	0.15	<0.15	0.15	<0.15	0.15	<0.16	0.16
Tetrahydrofuran	109-99-9	<0.79	0.79	<2.50	2.5	<0.73	0.73	<0.73	0.73	<0.76	0.76	<0.80	0.80
Chloroform	67-66-3	<0.16	0.16	<0.50	0.50	<0.15	0.15	<0.15	0.15	<0.15	0.15	<0.16	0.16
1,1,1-Trichloroethane	71-55-6	<0.16	0.16	<0.50	0.50	<0.15	0.15	<0.15	0.15	<0.15	0.15	<0.16	0.16
Cyclohexane	110-82-7	**1.5**	0.16	**160**	0.50	**3.8**	0.15	**1.0**	0.15	<0.15	0.15	**1.5**	0.16
Carbon Tetrachloride	56-23-5	<0.16	0.16	<0.50	0.50	<0.15	0.15	**0.15** J	0.15	<0.15	0.15	<0.16	0.16
2,2,4-Trimethylpentane	540-84-1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Benzene	71-43-2	**0.65** J	0.16	**4.8**	0.50	**7.6**	0.15	**7.4**	0.15	**0.43**	0.15	**0.54** J	0.16
1,2-Dichloroethane	107-06-2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Heptane	142-82-5	**1.2**	0.16	**18**	0.50	**5.0**	0.15	**5.5**	0.15	<0.15	0.15	**1.2**	0.16
Trichloroethene	79-01-6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
1,2-Dichloropropane	78-87-5	<0.16	0.16	<0.50	0.50	<0.15	0.15	<0.15	0.15	<0.15	0.15	<0.16	0.16
1,4-Dioxane	123-91-1	<0.16	0.16	<0.50	0.50	<0.15	0.15	<0.15	0.15	<0.15	0.15	<0.16	0.16
Bromodichloromethane	75-27-4	<0.16	0.16	<0.50	0.50	<0.15	0.15	<0.15	0.15	<0.15	0.15	<0.16	0.16
cis-1,3-Dichloropropene	10061-01-5	<0.16	0.16	<0.50	0.50	<0.15	0.15	<0.15	0.15	<0.15	0.15	<0.16	0.16
4-Methyl-2-pentanone	108-10-1	<0.16	0.16	<0.50	0.50	<0.15	0.15	<0.15	0.15	**0.16**	0.15	<0.16	0.16
Toluene	108-88-3	**1.0** J	0.16	**35**	0.50	**21**	0.15	**23**	0.15	**0.33**	0.15	**1.1** J	0.16
trans-1,3-Dichloropropene	10061-02-6	<0.16	0.16	<0.50	0.50	<0.15	0.15	<0.15	0.15	<0.15	0.15	<0.16	0.16
1,1,2-Trichloroethane	79-00-5	<0.16	0.16	<0.50	0.50	<0.15	0.15	<0.15	0.15	<0.15	0.15	<0.16	0.16
Tetrachloroethene	127-18-4	<0.16	0.16	**0.91**	0.50	**1.2**	0.15	**1.6**	0.15	<0.15	0.15	<0.16	0.16
2-Hexanone	591-78-6	<0.79	0.79	<2.50	2.5	<0.73	0.73	<0.73	0.73	<0.76	0.76	<0.80	0.80
Dibromochloromethane	124-48-1	<0.16	0.16	<0.50	0.50	<0.15	0.15	<0.15	0.15	<0.15	0.15	<0.16	0.16
1,2-Dibromoethane (EDB)	106-93-4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Chlorobenzene	108-90-7	<0.16	0.16	**140**	0.50	**0.28**	0.15	<0.15	0.15	<0.15	0.15	<0.16	0.16
Ethylbenzene	100-41-4	**0.38** J	0.16	**2.9**	0.50	**2.9**	0.15	**2.5**	0.15	**0.14** J	0.15	**0.32** J	0.16
m,p-Xylene	108-38-3/106-42-3	**0.51** J	0.16	**6.0**	0.50	**9.7**	0.15	**8.9**	0.15	**0.48**	0.15	**0.53** J	0.16
o-Xylene	95-47-6	**0.18** J	0.16	**2.9**	0.50	**3.3**	0.15	**3.0**	0.15	**0.17**	0.15	**0.15** J	0.16
Styrene	100-42-5	<0.16	0.16	**0.64**	0.50	**0.66**	0.15	**0.65**	0.15	<0.15	0.15	<0.16	0.16
Bromoform	75-25-2	<0.16	0.16	<0.50	0.50	<0.15	0.15	<0.15	0.15	<0.15	0.15	<0.16	0.16
Cumene	98-82-8	<0.16	0.16	**1.4**	0.50	**0.40**	0.15	**0.29**	0.15	<0.15	0.15	<0.16	0.16
1,1,2,2-Tetrachloroethane	79-34-5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Propylbenzene	103-65-1	<0.16	0.16	**0.79**	0.50	**0.47**	0.15	**0.56**	0.15	<0.15	0.15	<0.16	0.16
4-Ethyltoluene	622-96-8	<0.16	0.16	**1.3**	0.50	**2.1**	0.15	**2.7**	0.15	**0.17**	0.15	<0.16	0.16
1,3,5-Trimethylbenzene	108-67-8	**0.17**	0.16	**0.83**	0.50	**1.0**	0.15	**0.86**	0.15	<0.15	0.15	**0.19**	0.16
1,2,4-Trimethylbenzene	95-63-6	**0.26** J	0.16	**2.8**	0.50	**3.2**	0.15	**3.2**	0.15	**0.26**	0.15	**0.22**	0.16
1,3-Dichlorobenzene	541-73-1	<0.16	0.16	**1.5**	0.50	<0.15	0.15	<0.15	0.15	<0.15	0.15	<0.16	0.16
1,4-Dichlorobenzene	106-46-7	<0.16	0.16	**7.5**	0.50	**0.16**	0.15	<0.15	0.15	<0.15	0.15	<0.16	0.16
alpha-Chlorotoluene	100-44-7	<0.16	0.16	<0.50	0.50	<0.15	0.15	<0.15	0.15	<0.15	0.15	<0.16	0.16
1,2-Dichlorobenzene	95-50-1	<0.16	0.16	**0.61**	0.50	**0.44**	0.15	<0.15	0.15	<0.15	0.15	<0.16	0.16
1,2,4-Trichlorobenzene	120-82-1	<0.79	0.79	<2.5	2.5	<0.73	0.73	<0.73	0.73	<0.76	0.76	<0.80	0.80
Hexachlorobutadiene	87-68-3	<0.79	0.79	<2.5	2.5	<0.73	0.73	<0.73	0.73	<0.76	0.76	<0.80	0.80
Naphthalene	91-20-3	<0.79	0.79	<2.5	2.5	<0.73	0.73	<0.73	0.73	<0.76	0.76	<0.80	0.80
1,1,1,2-Tetrachloroethane	630-20-6	<0.79	0.79	<2.5	2.5	<0.73	0.73	<0.73	0.73	<0.76	0.76	<0.80	0.80
1,2,3-Trichloropropane	96-18-4	<0.79	0.79	<2.5	2.5	<0.73	0.73	<0.73	0.73	<0.76	0.76	<0.80	0.80
Acetonitrile	75-05-8	<0.79	0.79	<2.5	2.5	<0.73	0.73	<0.73	0.73	<0.76	0.76	<0.80	0.80
Butylbenzene	104-51-8	**0.99**	0.79	<2.5	2.5	<0.73	0.73	<0.73	0.73	<0.76	0.76	**1.1**	0.80
Dibromomethane	74-95-3	<0.79	0.79	<2.5	2.5	<0.73	0.73	<0.73	0.73	<0.76	0.76	<0.80	0.80
Ethyl Acetate	141-78-6	**10**	0.79	<2.5	2.5	<0.73	0.73	<0.73	0.73	<0.76	0.76	**9.3**	0.80
sec-Butylbenzene	135-98-8	<0.79	0.79	<2.5	2.5	<0.73	0.73	<0.73	0.73	<0.76	0.76	<0.80	0.80
Vinyl Acetate	108-05-4	<3.2	3.2	<9.9	9.9	<2.9	2.9	<2.9	2.9	<3.0	3.0	<3.2	3.2
TO-15 Low Level													
Dilution Factor		1.58		93.1		1.46		1.46		1.52		1.61	
Trichloroethene	79-01-6	**0.9**	0.032	<1.9	1.9	**2.5**	0.029	**3.7**	0.029	<0.030	0.03	**0.9**	0.032
1,2-Dichloroethane	107-06-2	<0.032	0.032	<1.9	1.9	<0.029	0.029	<0.029	0.029	<0.030	0.03	<0.032	0.032
1,2-Dibromoethane (EDB)	106-93-4	<0.032	0.032	<1.9	1.9	<0.029	0.029	<0.029	0.029	<0.030	0.03	<0.032	0.032
1,1,2,2-Tetrachloroethane	79-34-5	**0.036**	0.032	<1.9	1.9	<0.029	0.029	<0.029	0.029	<0.030	0.03	**0.034**	0.032

Results in ***bold*** denote detections.
The Duplicate is associated with SV-7.
Flags and Qualifiers
J - Result is an estimated value.
N/A - Not analyzed.
UJ - Estimated reporting limit.
D - Diluted sample

Checked by: JAP Date: 1/25/2007
Reviewed by: MNH Date: 1/25/2007

FIGURES



LEGEND

APPROXIMATE WASTE DISPOSAL AREA BOUNDARY

STRUCTURE EVALUATED BY SOIL VAPOR SAMPLING

SOIL VAPOR SAMPLE LOCATION

NOTES:

1. ***BASE MAP MODIFIED FROM ORIGINAL MAP PROVIDED BY SOLUTIA INC. (11/1/02).***
2. ***WASTE DISPOSAL AREA BOUNDARIES SHOWN ARE APPROXIMATE.***

200 0 200
SCALE FEET

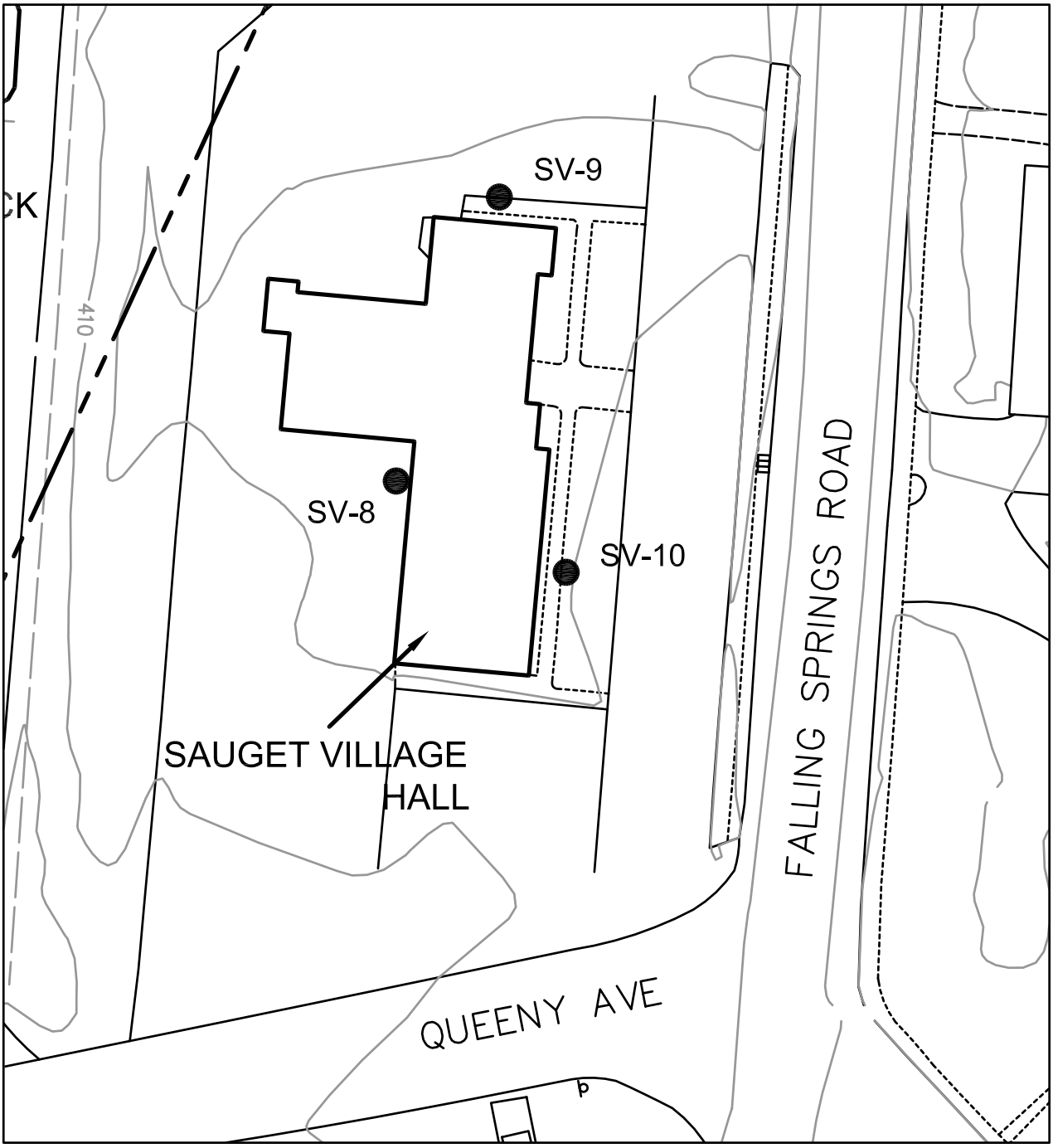
Golder Associates
St. Louis, Missouri

FILE No.	0439670A101
PROJECT No.	043-9670 REV. 0
SCALE	AS SHOWN
DATE	02/28/06
DESIGN	MNH
CADD	PCM
CHECK	MNH
REVIEW	RG

TITLE
LOCATION OF EVALUATED STRUCTURES

PROJECT
SAUGET AREA 1
SOIL VAPOR INTRUSION INVESTIGATION
Sauget, Illinois

FIGURE
1



50 0 50
SCALE FEET

LEGEND

● SOIL VAPOR SAMPLE LOCATION

NOTES

1. BASE MAP MODIFIED FROM ORIGINAL MAP PROVIDED BY SOLUTIA INC. (11/1/02).

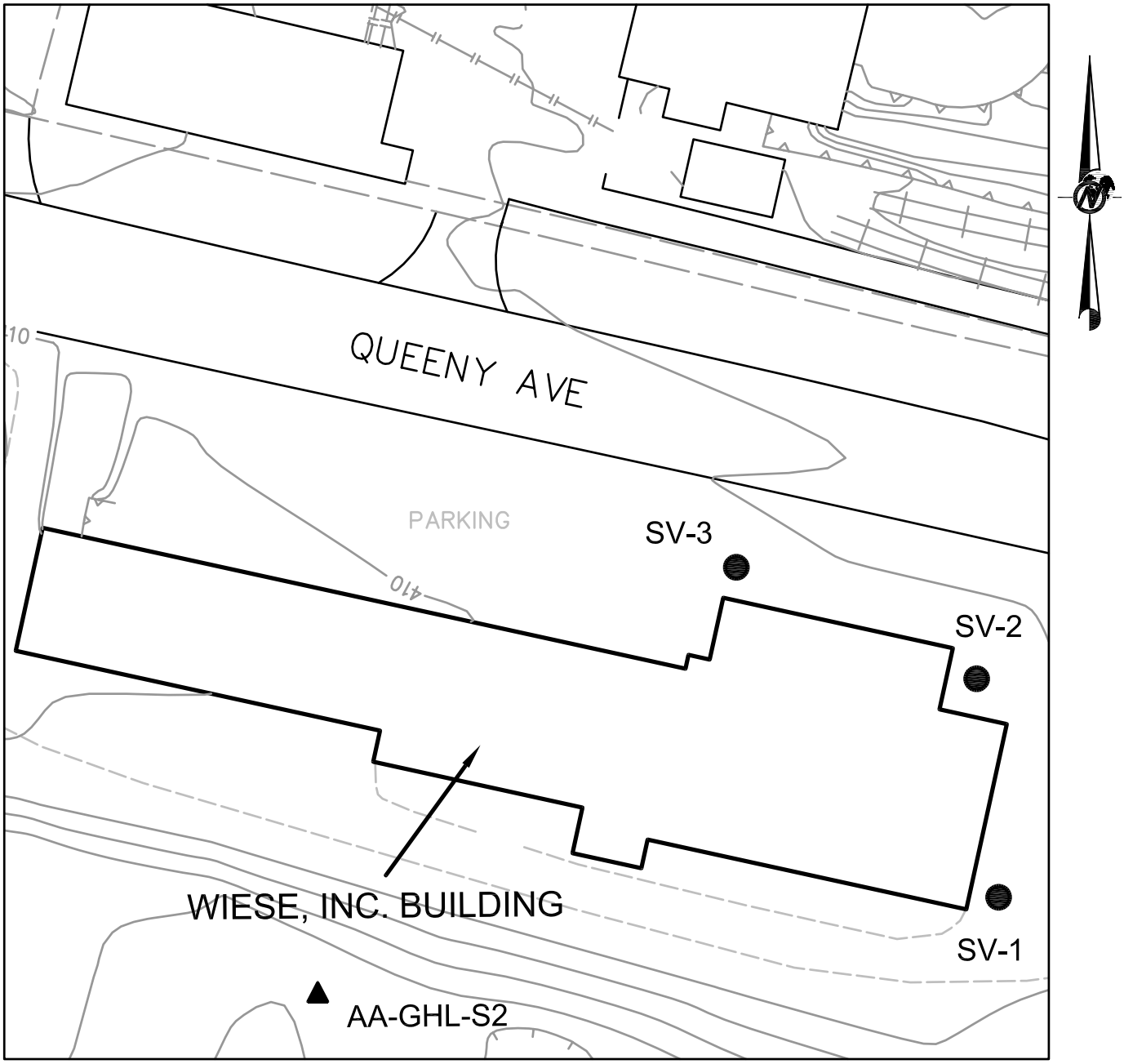
Golder Associates
St. Louis, Missouri

FILE No.	0439670A102
PROJECT No.	043-9670
REV.	0
SCALE	AS SHOWN
DATE	2/28/06
DESIGN	MNH
CADD	PCM
CHECK	MNH
REVIEW	RG

TITLE
SAUGET VILLAGE HALL SAMPLING LOCATIONS

SAUGET AREA 1
SOIL VAPOR INTRUSION INVESTIGATION
Sauget, Illinois

FIGURE
2



50 0 50
SCALE FEET

LEGEND

- SOIL VAPOR SAMPLE LOCATION
- GROUNDWATER SAMPLING LOCATION (1999-2000)

NOTES

1. BASE MAP MODIFIED FROM ORIGINAL MAP PROVIDED BY SOLUTIA INC. (11/1/02).
2. GROUNDWATER SAMPLING LOCATIONS FROM 1999 - 2000 ARE BASED ON GSI FIGURE B-1 "CHLOROBENZENE CONCENTRATIONS IN GROUNDWATER" DATED 1/21/05.

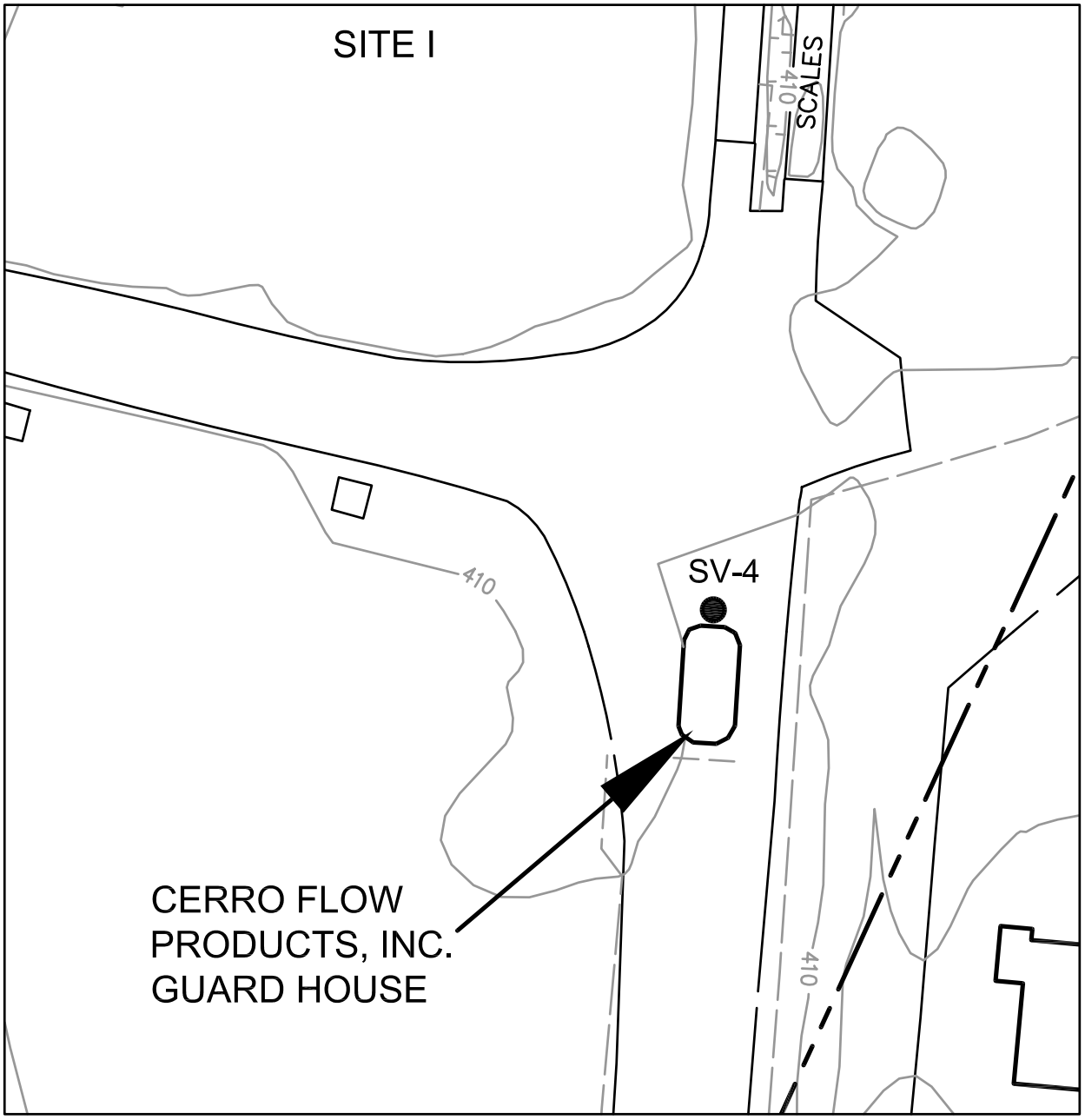
Golder Associates
St. Louis, Missouri

FILE No.	0439670A103
PROJECT No.	043-9670
REV.	1
SCALE	AS SHOWN
DATE	10/20/06
DESIGN	MNH
CADD	SLS
CHECK	PGU
REVIEW	MNH

TITLE
WIESE, INC. BUILDING SAMPLING LOCATIONS

SAUGET AREA 1
SOIL VAPOR INTRUSION INVESTIGATION
Sauget, Illinois

FIGURE
3



50 0 50
SCALE FEET

LEGEND

SOIL VAPOR SAMPLE LOCATION

NOTES

1. BASE MAP MODIFIED FROM ORIGINAL MAP PROVIDED BY SOLUTIA INC. (11/1/02).

Golder Associates
St. Louis, Missouri

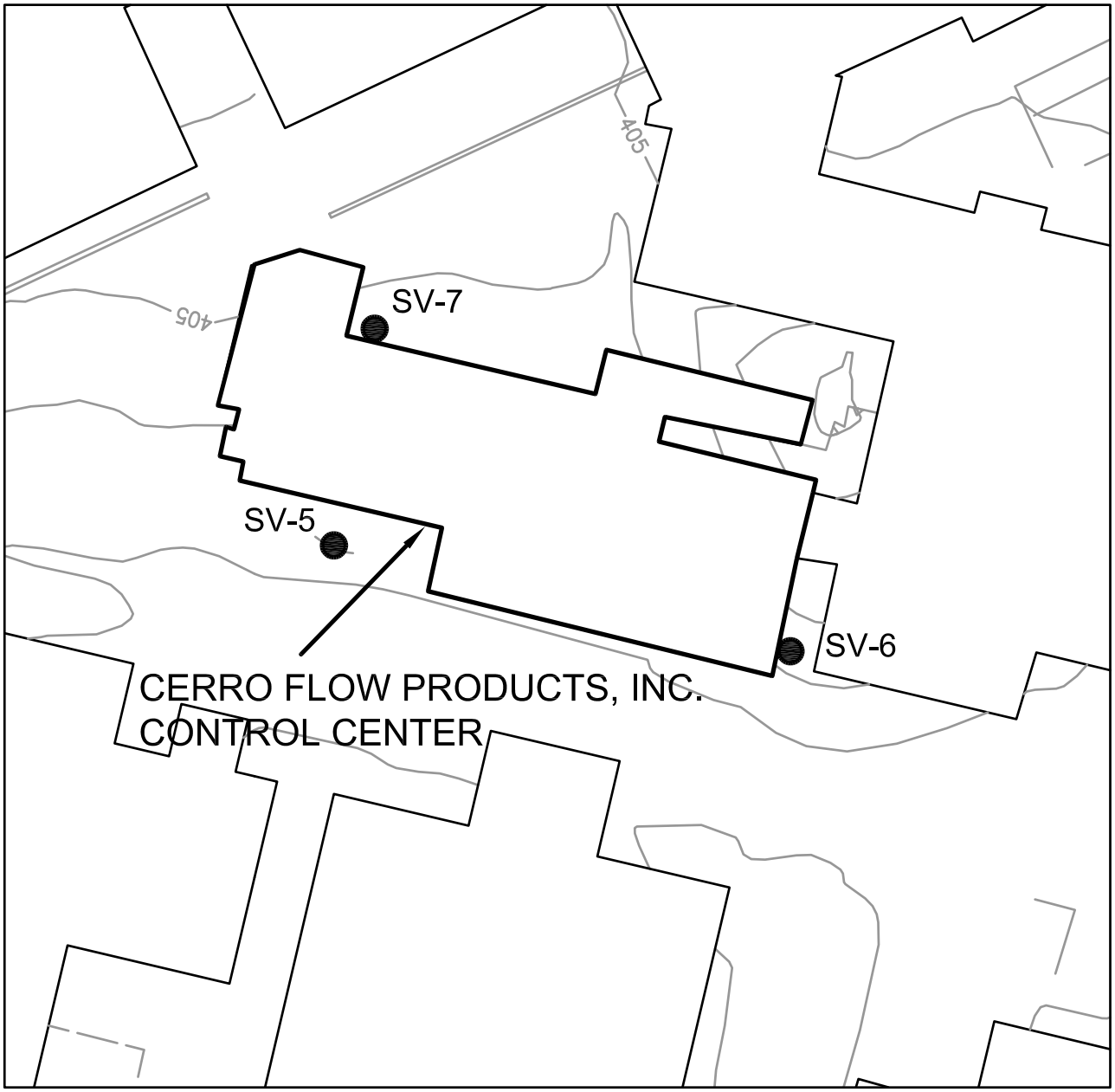
FILE No.	0439670A104
PROJECT No.	043-9670
REV.	0
SCALE	AS SHOWN
DATE	2/28/06
DESIGN	MNH
CADD	PCM
CHECK	MNH
REVIEW	RG

TITLE

CERRO FLOW PRODUCTS, INC.
GUARD HOUSE SAMPLING LOCATION

SAUGET AREA 1
SOIL VAPOR INTRUSION INVESTIGATION
Sauget, Illinois

FIGURE
4



50 0 50
SCALE FEET

LEGEND

● SOIL VAPOR SAMPLE LOCATION

NOTES

1. BASE MAP MODIFIED FROM ORIGINAL MAP PROVIDED BY SOLUTIA INC. (11/1/02).

Golder Associates
St. Louis, Missouri

FILE No.	0439670A105
PROJECT No.	043-9670
REV.	1
SCALE	AS SHOWN
DATE	4/3/06
DESIGN	MNH
CADD	PCM
CHECK	MNH
REVIEW	RG

TITLE

CERRO FLOW PRODUCTS, INC.
CONTROL CENTER SAMPLING LOCATIONS

SAUGET AREA 1
SOIL VAPOR INTRUSION INVESTIGATION
Sauget, Illinois

FIGURE
5

APPENDICES

APPENDIX A

PHOTO DOCUMENTATION

Photograph Number:	1

Project No.: 043-9670 ***Project: Solutia Soil Vapor Sampling Event***
Location: ***Wiese Building*** ***SV-1***
Date: 11/29/06
Taken By: JCW
Direction Looking: ***Southwest***

Description:
SV-1 sampling location on the east side of the Wiese building.

Photograph Number:	2

Project No.: 043-9670 ***Project: Solutia Soil Vapor Sampling Event***
Location: ***Wiese Building*** ***SV-2***
Date: 11/29/06
Taken By: JCW
Direction Looking: ***West***

Description:
SV-2 sampling location on the east side of the Wiese building.

Photograph Number:	3

Project No.: 043-9670
Project: Solutia Soil Vapor Sampling Event

Location:
Wiese Building
SV-3

Date: 12/4/06

Taken By: JCW

Direction Looking:

Southwest

Description:
SV-3 sampling location on the north side of the Wiese building.

Photograph Number:	***4***

Project No.:
043-9670
Project: Solutia Soil Vapor Sampling

Location:
Cerro Flow Products
SV-5

Date:
12/5/06

Taken By:
JCW

Direction Looking:

North

Description:
SV-5 sampling location on the south side of the Cerro Flow control center.

Photograph Number:	5

Project No.: 043-9670	
Project: Solutia Soil Vapor Sampling Event	
Location: Cerro Flow Products SV-6	
Date: 12/5/06	
Taken By: JCW	
Direction Looking: West	

Description:
SV-6 sampling location on the east side of the Cerro Flow control center.

Photograph Number:	***6***

Project No.: 053-8189	
Project: Solutia Soil Vapor Sampling	
Location: Cerro Flow Products SV-7	
Date: 12/6/06	
Taken By: JCW	
Direction Looking: West	

Description:
SV-7 sampling location on the north side of the Cerro Flow control center.

Photograph Number: 7	
	***Project No.: 043-9670*** ***Project: Solutia Soil Vapor Sampling Event*** ***Location: Sauget Village Hall SV-8*** ***Date: 12/9/06*** ***Taken By: JCW*** ***Direction Looking:*** ***North***
Description: SV-8 sampling location on the west side of the Sauget Village Hall.	

Photograph Number: 8	
	***Project No.: 043-9670*** ***Project: Solutia Soil Vapor Sampling*** ***Location: Sauget Village Hall SV-9*** ***Date: 12/9/06*** ***Taken By: JCW*** ***Direction Looking:*** ***South***
Description: SV-9 sampling location on the north side of the Sauget Village Hall.	

Photograph Number:	9

Project No.: 043-9670
Project: Solutia Soil Vapor Sampling Event

Location: Sauget Village Hall SV-10

Date: 12/9/06

Taken By: JCW

Direction Looking:

North

Description:
SV-10 sampling location on the east side of the Sauget Village Hall.

Photograph Number:	***10***

Project No.: 053-8189
Project: Solutia Soil Vapor Sampling

Location: Cerro Flow Products

Date: 12/6/06

Taken By: JCW

Direction Looking:

South

Description:
Duplicate sampling location on the north side of the Cerro Flow control center.

APPENDIX B

SAMPLE COLLECTION FORMS, FIELD CALIBRATION FORMS & FIELD NOTES

SOIL VAPOR SAMPLE COLLECTION FORM

Golder Associates

Project Ref: Solutia Soil Vapor Sampling Event **Project No. :** 043-9670

WEATHER CONDITIONS

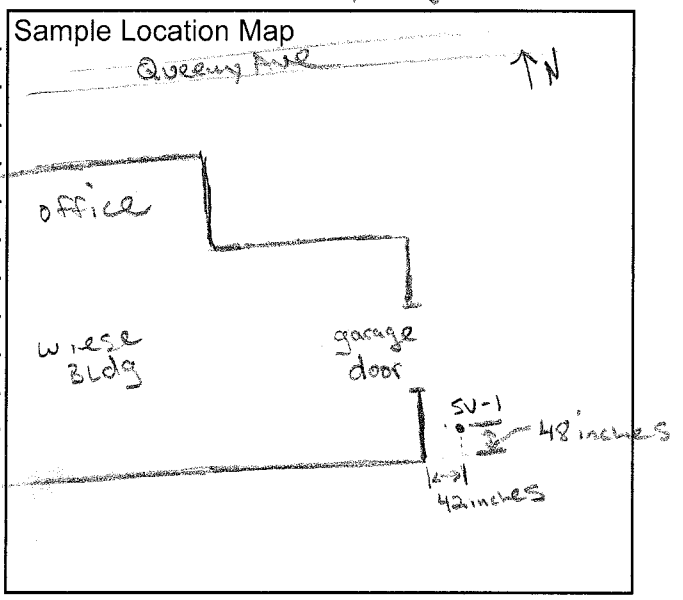
Temperature 65°F Weather Cloudy ~ 15mph wind, South

SAMPLE INFORMATION

Sample Location	Wiese	Sample No.	SV-1
Sample Date	11/29/06	Sample By	JCW/MNH
Sample Method	Amm Probe, declonized tip	Sample Type	Soil Gas, Integrated ~2 hr
Initial Vacuum	29.5 in Hg		
Final Vacuum	5.0 in Hg		
Purge Volume	53 mL x3 159 mL		
Duration of Purge	1.5 min		
Sample Start Time	1100		
Sample End Time	1209		
Sample Volume	~5L		
Sample Depth	5.1 FT BGS		
Backfill Material	Granular Bentonite		
Canister Serial #	96107 File# 47569		
Regulator Serial #	96107		

9.75 ft Tube 3/16 in ID

Sample Location Map



LABORATORY CONTAINERS

Sub-Sample	Analysis Requested	Type and Size of Sample Container	Filtered (Yes or No)	Type of Preservative
1	TO-15 (mod Hi/Lo)	6L Summa	No	—
2				
3				
4				

REMARKS:

Check time	PID Reading	Vacuum
1110	0.0 ppm	25.0 in Hg
1120	0.0	20.8
1130	0.0	16.1
1140	0.0	12.4
1150	0.0	9.0
1200	0.0	6.6
1208	0.0	5.0

SOIL VAPOR SAMPLE COLLECTION FORM

Golder Associates

Project Ref: Solutia Soil Vapor Sampling Event **Project No. :** 043-9670

WEATHER CONDITIONS

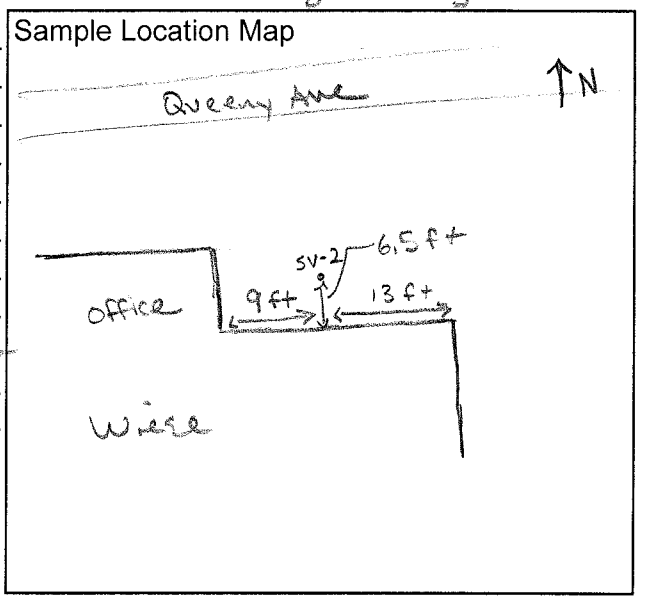
Temperature 70° F Weather Cloudy, wind ~ 10 mph, South

SAMPLE INFORMATION

Sample Location	Wiese	Sample No.	SV-2
Sample Date	11/29/06	Sample By	JCW, MNH
Sample Method	AMS Probe, Dedicated tip	Sample Type	Soil gas, integrated ~ 1 hr
Initial Vacuum	29.2 in Hg		
Final Vacuum	5.0 in Hg		
Purge Volume	40 mL x3 / 20 mL		
Duration of Purge	72 sec		
Sample Start Time	1435		
Sample End Time	1548		
Sample Volume	~ 5L		
Sample Depth	5.0 ft BGS		
Backfill Material	6in Silica Sand / Granular bentonite		
Canister Serial #	34741		
Regulator Serial #	34741		

7.5 ft Tube 3/16 in ID

Sample Location Map



LABORATORY CONTAINERS

Sub-Sample	Analysis Requested	Type and Size of Sample Container	Filtered (Yes or No)	Type of Preservative
1	TO-15 (mod Hi/Lo)	6L Summa	No	—
2				
3				
4				

REMARKS: vehicular traffic close by during sampling, exhaust fumes present.

Check time	PID Reading	Vacuum
1445	0.0 PPM	25.0 In Hg
1455	0.0	21.2
1505	0.0	17.0
1515	0.0	13.8
1525	0.0	10.7
1535	0.0	8.0
1545	0.0	5.8

SOIL VAPOR SAMPLE COLLECTION FORM

Golder Associates

Project Ref: Solvita soil vapor sampling Event **Project No. :** 043-9670

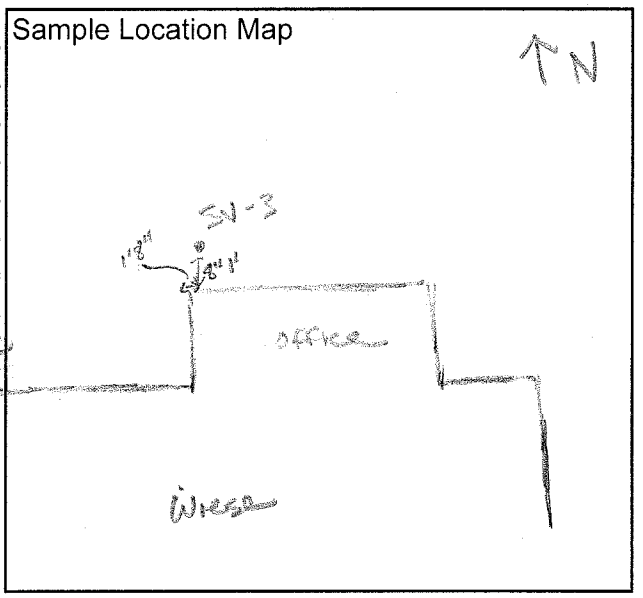
WEATHER CONDITIONS

Temperature 25° F Weather Sunny, Calm

SAMPLE INFORMATION

Sample Location	Wiese	Sample No.	SV-3 Wiese
Sample Date	12/04/06	Sample By	ICW / MRF
Sample Method	AMS	Sample Type	~1 hr composite
Initial Vacuum	28.5 in Hg		
Final Vacuum	5.0 in Hg		
Purge Volume	42 mL x3	126 mL	
Duration of Purge	7.5 sec		
Sample Start Time	1213		
Sample End Time	1322		
Sample Volume	~5L		
Sample Depth	5.0 F + BGS		
Backfill Material	20/40 Silica Sand / Granular Bentonite		
Canister Serial #	33558		
Regulator Serial #	33558		

Sample Location Map



7.7 sec 50 sec 25 sec

LABORATORY CONTAINERS

Sub-Sample	Analysis Requested	Type and Size of Sample Container	Filtered (Yes or No)	Type of Preservative
1	TO-15 Hi/Lo (mod)	6L Summa	NO	—
2				
3				
4				

REMARKS:

Check Time	in Hg	PID
1223	25.0	0.0
1233	21.1	0.0
1243	17.8	0.0
1253	14.1	0.0
1303	11.0	0.0
1313	9.6	0.0
1323	6.5	0.0

SOIL VAPOR SAMPLE COLLECTION FORM

Golder Associates

Project Ref: Solutia Soil Vapor Sampling Event **Project No. :** 043-9620

WEATHER CONDITIONS

Temperature 45° F Weather Cloudy S. Wind ~5mph

SAMPLE INFORMATION

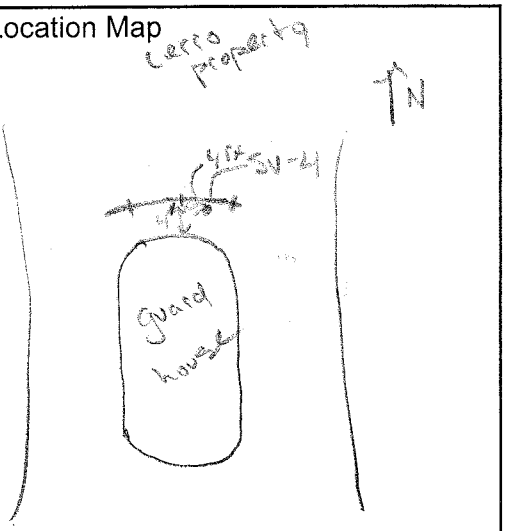
Sample Location: Cerro Copper
Sample Date: 12/11/06
Sample Method: AMS GV P

Sample No.: SV-4 Cerro
Sample By: J. White
Sample Type: 24 hr

Initial Vacuum: 29.0
Final Vacuum: 5.0
Purge Volume: 59 x3 177
Duration of Purge: 105 sec
Sample Start Time: 1120
Sample End Time: 1248
Sample Volume: 2.5L
Sample Depth: 5.15ft
Backfill Material: 20/40 Sand / Granular Bentonite
Canister Serial #: 1207A
Regulator Serial #: 1207A

10.9 ft tube 71
55

Sample Location Map



LABORATORY CONTAINERS

Sub-Sample	Analysis Requested	Type and Size of Sample Container	Filtered (Yes or No)	Type of Preservative
1	TO-15	6L Summa	—	—
2				
3				
4				

REMARKS:

Clock Time	in Hg	PID
1130	29	0.0
1140	~25.5	11.0* Starting to see moisture affecting PID
1150	~21	30.0
1200	18.1	—
1210	14.9	—
1220	11.2	—
1230	9.3	—

SOIL VAPOR SAMPLE COLLECTION FORM

Golder Associates

Project Ref: Solutia Soil Vapor Sampling Event **Project No. :** 043-9670

WEATHER CONDITIONS

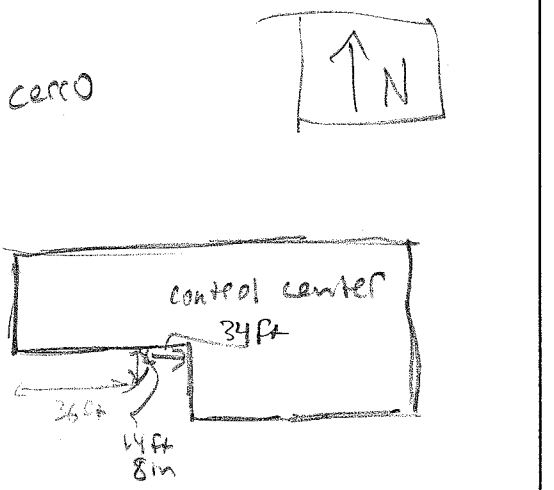
Temperature 40°F sunny Weather Sunny southeasterly wind

SAMPLE INFORMATION

Sample Location	Cerro Control Center	Sample No.	SV-5
Sample Date	12/5/06	Sample By	JCW / MRF
Sample Method	Summa CVA	Sample Type	2 hr composite
Initial Vacuum	29.4 in Hg		
Final Vacuum	5.0 in Hg		
Purge Volume	36 mL x3 108 mL		
Duration of Purge	65 sec		
Sample Start Time	1206		
Sample End Time	1315		
Sample Volume	~5L		
Sample Depth	0.8 FT		
Backfill Material	20/40 silica sand / granular Bentonite		
Canister Serial #	945		
Regulator Serial #	945		

6.7 Pa 44 sec
22 sec

Sample Location Map



LABORATORY CONTAINERS

Sub-Sample	Analysis Requested	Type and Size of Sample Container	Filtered (Yes or No)	Type of Preservative
1				
2				
3				
4				

REMARKS:

check time	in Hg	PID
1216	25.0	0.0
1226	20.1	0.0
1236	16.0	0.1
1246	12.0	0.0
1256	8.9	0.0
1306	6.6	0.1
1315		

Could not get closer to building due to buried utilities vehicular traffic in access easement

SOIL VAPOR SAMPLE COLLECTION FORM

Golder Associates

Project Ref: Solutia Soil Vapor Sampling Event **Project No.:** 043-9670

WEATHER CONDITIONS

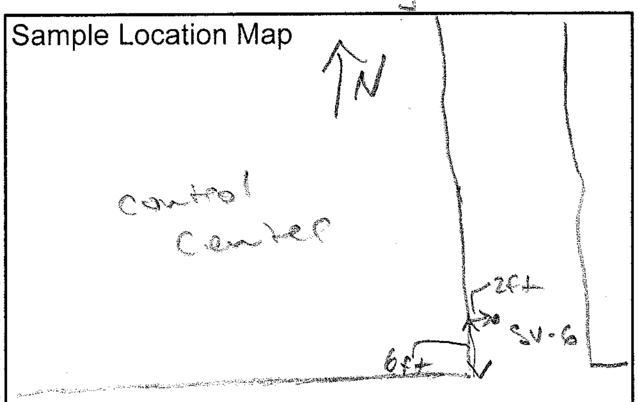
Temperature 45° F Weather Sunny SE wind ~ 5 mph

SAMPLE INFORMATION

Sample Location	Cerro Products
Sample Date	12/5/06
Sample Method	AMS GVP
Initial Vacuum	30.0 in Hg
Final Vacuum	5.0
Purge Volume	34 x3 102
Duration of Purge	60 sec
Sample Start Time	1515
Sample End Time	1632
Sample Volume	~ 5 L
Sample Depth	15 inches
Backfill Material	20/40 Silica Sand, bentonite
Canister Serial #	4116
Regulator Serial #	4116

Sample No.	SV-6
Sample By	JCW / MRF
Sample Type	~1 hr integrated

Sample Location Map



6.3 ft 40 sec
20 sec

LABORATORY CONTAINERS

Sub-Sample	Analysis Requested	Type and Size of Sample Container	Filtered (Yes or No)	Type of Preservative
1	TO-15 HI/LO modified	6L summa	No	—
2				
3				
4				

REMARKS:

check time	(in Hg)	PID (PPM)
1525	26.5	0.3
1535	21.5	0.0
1545	17.4	0.0
1555	13.9	0.0
1605	10.5	0.1
1615	7.6	0.0
1625	6.0	0.2

Some vehicular traffic

SOIL VAPOR SAMPLE COLLECTION FORM

Golder Associates

Project Ref: SoWMa Soil Vapor Sampling Event **Project No.:** 043-9670

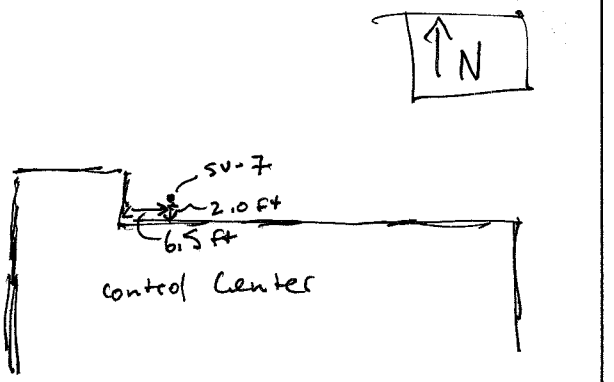
WEATHER CONDITIONS

Temperature 40°F Weather Cloudy ; Eastward Smoke

SAMPLE INFORMATION

Sample Location	Cerro Control Center	Sample No.	SV-7 + Duplicate
Sample Date	12/6/06	Sample By	J. White, M. Foreman
Sample Method	AMS GVP	Sample Type	~1 hr
Initial Vacuum	SV-7: 29.4	Dup: 28.7	
Final Vacuum	SV-7: 5.0	Dup: 5.0	
Purge Volume	38 x3	114 mL	
Duration of Purge	69 sec		
Sample Start Time	1026		
Sample End Time	Dup: 1127	SV-7: 1129	
Sample Volume	~5 L		
Sample Depth	1.8 ft	1 ft concrete	
Backfill Material	20/40 Sand	granular Bentonite	
Canister Serial #	SV-7: 12692	Dup: 417	
Regulator Serial #	SV-7: 12692	Dup: 417	

Sample Location Map



7.1 ft Tube 46 sec
23 sec
28.4 28.7

LABORATORY CONTAINERS

Sub-Sample	Analysis Requested	Type and Size of Sample Container	Filtered (Yes or No)	Type of Preservative
1	TO-15 Hi/Lo mod	6L Summa	—	—
2				
3				
4				

REMARKS:

check time	SV-7 In Hg	Dup	PID
1036	23.9	23.8	0.0
1046	19.0	19.0	0.0
1056	14.5	14.9	0.0
1106	11.1	10.9	0.0
1116	7.9	8.1	0.1
1126	5.8	5.3	0.0

SOIL VAPOR SAMPLE COLLECTION FORM

Golder Associates

Project Ref: Solutia Soil Vapor Sampling Event **Project No. :** 043-9670

WEATHER CONDITIONS

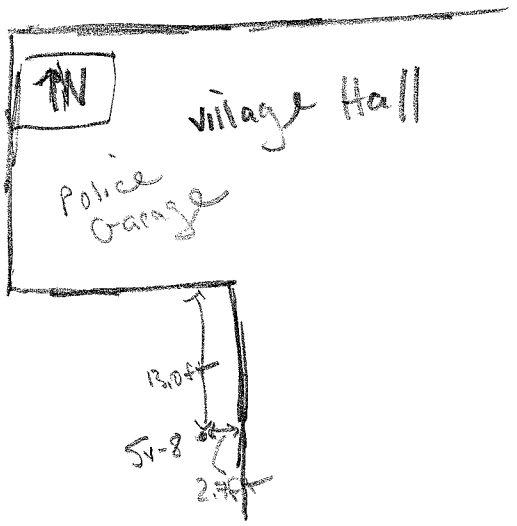
Temperature 40° F Weather Sunny ~10 mph South wind

SAMPLE INFORMATION

Sample Location	Sauget Village Hall	Sample No.	SV-8
Sample Date	12/9/00	Sample By	JCW/SS
Sample Method	AMS - CVP	Sample Type	~1hr comp
Initial Vacuum	27.1 in Hg		
Final Vacuum	5.0 in Hg		
Purge Volume	84 mL x3 252 mL		
Duration of Purge	150 sec		
Sample Start Time	1019		
Sample End Time	1124		
Sample Volume	~5 L		
Sample Depth	11.1 ft		
Backfill Material	20/40 Sand / granular Bentonite		
Canister Serial #	10780		
Regulator Serial #	10780		

15.6 ft tube 100 sec
50 sec

Sample Location Map



LABORATORY CONTAINERS

Sub-Sample	Analysis Requested	Type and Size of Sample Container	Filtered (Yes or No)	Type of Preservative
1	TO-15 mod Hi/Lo	6L Summa	—	—
2				
3				
4				

REMARKS: near police garage

Clock time	mmHg	PID
1029	23.9	0.0
1039	18.1	0.1
1049	14.1	0.1
1059	12.1	0.2
1109	7.5	0.1
1119	5.6	0.1

SOIL VAPOR SAMPLE COLLECTION FORM

Golder Associates

Project Ref: Solutia Soil Vapor Sampling Event **Project No. :** 043-9670

WEATHER CONDITIONS

Temperature 45° Weather Sunny wind South ~ 5 mph

SAMPLE INFORMATION

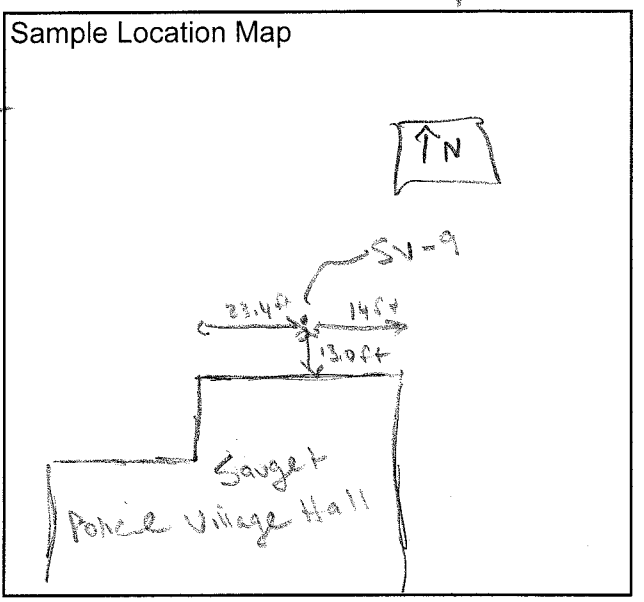
Sample Location	Sauget Village hall	Sample No.	SV-9
Sample Date	12/9/06	Sample By	JCW / SS
Sample Method	AMS - Cup	Sample Type	~1hr comp
Initial Vacuum	29.9 inHg		
Final Vacuum	5.0 inHg		
Purge Volume	82 mL x3 246 mL		
Duration of Purge	147 sec		
Sample Start Time	1335		
Sample End Time	1446		
Sample Volume	~ 5L		
Sample Depth	11.1 ft		
Backfill Material	20/40 Sand / Granular Bentonite		
Canister Serial #	4257		
Regulator Serial #	4257		

15.2 ft Tube

98 sec

49 sec

Sample Location Map



LABORATORY CONTAINERS

Sub-Sample	Analysis Requested	Type and Size of Sample Container	Filtered (Yes or No)	Type of Preservative
1	TO-15 mod Hi/Lo	6L Summa	—	—
2				
3				
4				

REMARKS: 3.5 ~ 0

check time	inHg	psi
1345	27.4	0.1
1355	23.5	0.3
1405	19.5	0.1
1415	15.5	0.0
1425	12.2	0.2
1435	9.5	0.0
1445	6.7	0.2

SOIL VAPOR SAMPLE COLLECTION FORM

Golder Associates

Project Ref: Solvia Soil vapor Sampling Event **Project No. :** 043-9670

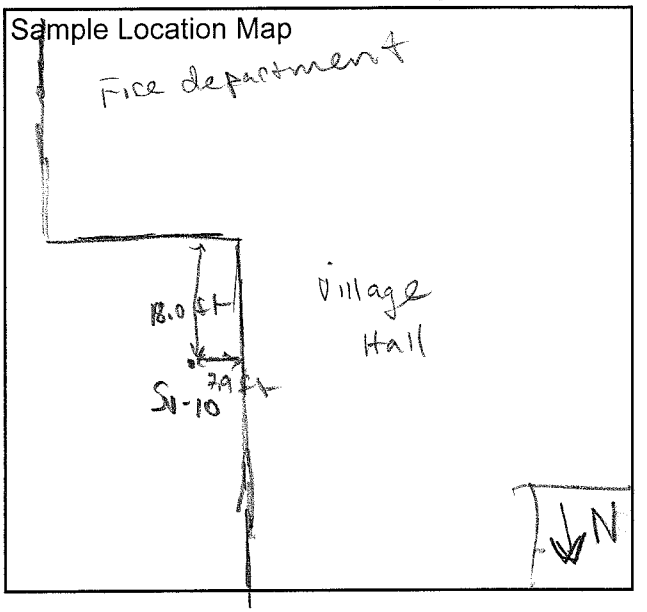
WEATHER CONDITIONS

Temperature 48° F Weather Sunny South wind ~ 5mph

SAMPLE INFORMATION

Sample Location	Saugat Village Hall	Sample No.	SV-10
Sample Date	12/9/06	Sample By	JCW / SS
Sample Method	AMS — GVP	Sample Type	~1hr comp
Initial Vacuum	29.7 in Hg		
Final Vacuum	5.0 in Hg		
Purge Volume	96 mL x3 288 mL		
Duration of Purge	172 sec		
Sample Start Time	1540		
Sample End Time	1654		
Sample Volume	~5L		
Sample Depth	11.0 ft		
Backfill Material	20/4		
Canister Serial #	34466		
Regulator Serial #	34466		

Sample Location Map



17.7 Dr Tube
115 sec
57 sec

LABORATORY CONTAINERS

Sub-Sample	Analysis Requested	Type and Size of Sample Container	Filtered (Yes or No)	Type of Preservative
1	TO-15 mod Hi/Lo	6L Summa	—	—
2				
3				
4				

REMARKS:

Check Time	in Hg	PID
1550	26	0.1
1600	21.4	0.1
1610	17.1	0.3
1620	13	0.1
1630	9.5	0.0
1640	7.2	0.0
1650	5.4	0.0

SOIL VAPOR SAMPLE COLLECTION FORM

Golder Associates

Project Ref: Soluna Soil Vapor Sampling Event **Project No.:** 043-9670

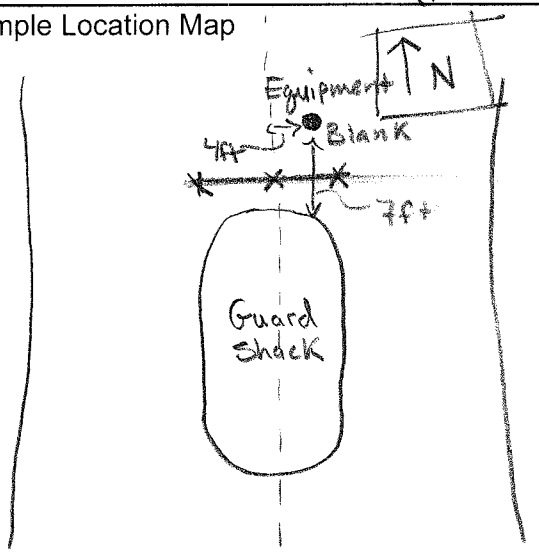
WEATHER CONDITIONS

Temperature 50°F Weather Cloudy, mist, S. wind ~5 mph

SAMPLE INFORMATION

Sample Location	Cerro Copper	Sample No.	Equipment Blank
Sample Date	12/11/06	Sample By	J. White
Sample Method	canister to canister	Sample Type	~1 hr integrated
Initial Vacuum	29.5 in Hg		
Final Vacuum	5.0 in Hg		
Purge Volume	21 mL x3 ~65 mL		
Duration of Purge	~10 sec @ 600 mL/min		
Sample Start Time	1150		
Sample End Time	1230		
Sample Volume	~5L		
Sample Depth	—		
Backfill Material	—		
Canister Serial #	34403		
Regulator Serial #	34403		

Sample Location Map



LABORATORY CONTAINERS

Sub-Sample	Analysis Requested	Type and Size of Sample Container	Filtered (Yes or No)	Type of Preservative
1	TO-15 mod Hi/Lo	6L Summa	—	—
2				
3				
4				

REMARKS: Used zero air as vaporpoint

Check time

in Hg	time	PID
19.1	1202	0.0
11.6	1212	0.0
8.7	1222	0.1
5.0	1230	0.0

Golder Associates

INSTRUMENT CALIBRATION FORM

Project Name: Solutia Soil Vapor Sampling Event **Project No:** 043-9670

Calibration By: J. White

Instrument Details

Instrument Name	Mini RAE
Serial No.	
Model No.	

Calibration Details

Required Calibration Frequency/Last Calibration	Beginning of every day + as needed
Calibration Standard	Isobut 100 ppm
Calibration Standard(s) Expiration Date	06/09

Calibration:

Date	Time	Calibration Standard Units: PPM	Instrument Reading Units: PPM
11/29/06	820	100	100
12/4/06	825	100	100
12/5/06	800	100	100
12/6/06	845	100	100
12/9/06	840	100	100
12/11/06	940	100	100

Comments:

(1) 043-9670 Soil vapor JCW 11/29/06

800 Site health + safety meeting
820 Setup on first probe location
955 grout hole with bentonite
1048 Pass helium test + purge 3 well volumes 150 mL ones 1.5 min
1100 Begin sampling 29.5 in Hg
1209 End sampling 5.0 in Hg
1220 Move to SV-2 Point
1330 Slight VOC odor on SV-2 0.0 on PID
1340 placed sand + hydrated bentonite in annulus.
1400 Begin purging SV-2
1410 Begin helium leak testing
1420 Pass helium leak test
1435 Start sampling SV-2
1548 End sampling in SV-2
1604 Set up on SV-3
1617 could not advance probe lower than 3.8 ft, decon and attempt tomorrow
1640 left site,

Blank

(2) 043-9670 Solvita Soil Vapor JCW 12/04/06

800 On site
815 Site health + safety meeting
Luca Ocanas Arrives
952 Pass helium Leak test at SV-3
Proceede w/ sampling
1005 Start Sampling
1014 Notice moisture in sample line, move to another location
1155 Begin purging at SV-3 Alt.
1200 Pass Leaktest, ok to sample
1213 Begin sampling at SV-3
End Sampling at SV-3
1341 off site for lunch.
1440 with Joe G
1455 at SV-4 21 in Hg
1605 letting Bentonite seal/ Set
1620 Moisture in purge line, no time to move to Alternate location
1700 Off site
1710 Drop Decon water in 55 gal drum at site R,

Blank

JCW

③ 043-9670 Solutia Soil Vapor 12/5/06

740	on site at Guardhouse (cerro)
820	met with Joe about probe locations
940	SV-4 Brough up moisture during purge, to dry at another point
1100	Have trouble getting through rebar infront of control center
1130	Hydrate bentonite in SV-5, place shroud,
1206	Begin Sampling at SV-5, Pass helium test.
1315	Finish sampling SV-5
1323	off site for lunch
1406	on site
1420	Setup at SV-6 (near control center)
1445	Bentonite seal + hydrate
1505	begin Purge, Pass Helium leak check
1515	Begin Sampling SV-6
1632	End Sampling SV-6
1645	off site

Blank

JCW

④ 043-9670 Solutia Soil Vapor 12/6/06

830	on site, had to rent generator
845	Set up to drill at SV-7 (cerro) 1.8 ft depth 1ft core.
940	hydrate bentonite
1010	Pass Leak test
1026	Begin sampling SV-7 + Dup
1127	End sampling Dup
1129	End Sampling SV-7
1155	left site after patching concrete.

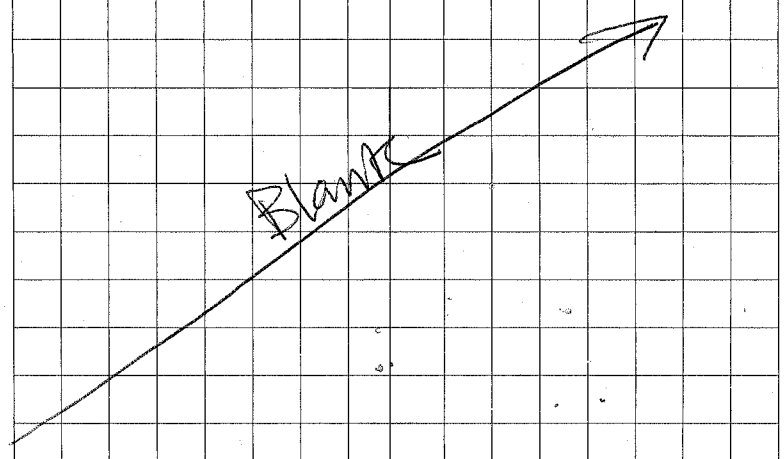
Blank

(5) 043-9670 12/9/06

~~815~~	~~On Site~~
835	Begin drilling SV-8 (image hall)
910	Finish drilling SV-8 TD = 11.1 ft bgs tubing 15.6 ft
938	Bentonite seal + Allow to hydrate
1010	Pass helium leak test
1019	Begin sampling SV-8
1124	End Sampling SV-8
1140	Begin drilling SV-9
1158	hydrate Bentonite seal
1230	draw moisture in SV-8, move out to 14 ft from wall
1310	hydrate with bentonite
1335	Pass helium test, begin Sampling SV-9 alternate
1430	SV-10 drilled to 11.0 ft bgs, 17.7 ft tubing.
1446	End sampling at SV-9
1520	Bentonite hydrated at SV-10
1535	Pass leak test at SV-10
1540	Begin sampling at SV-10
	End sampling at SV-10
	Take decon #20 to Site R

(6) 043-9670 JCW 12/11/06

920	on site w/ Sara S.
940	laura s. on site
1038	hydrate bentonite
1059	start purge
1109	Pass Leak Check
1120	Begin Sampling SV-4
1151	Begin Equipment Blank
1230	Done Equip Blank
1240	checked SV-4 at ~8 in Hg which was not cal correctly take down to 7.5 ~~find~~ check with another gauge
1248	finish sampling SV-4
1310	off site



APPENDIX C

LABORATORY ANALYTICAL REPORTS

QA LEVEL II - ORGANIC DATA EVALUATION CHECKLIST

Company Name: Golder Associates | Project Manager: M. Haddock
Project Name: Soluna Soil Vapor Sampling Event | Project Number: 043-9670
Reviewer: J. White | Validation Date: 1/25/07

Laboratory: Air Toxics LTD. | SDG #: 0611634AR1
Analytical Method (type and no.): TO-15 SIM
Matrix: ☒ Air ☐ Soil/Sed ☐ Water ☐ Waste ☐
Sample Names: SV-1

NOTE: Please provide calculation in Comment areas or on the back (if on the back please indicate in comment areas).

Field Information	YES	NO	NA	COMMENTS
a) Sampling dates noted?	☑	☐	☐	
b) Sampling team indicated?	☑	☐	☐	
c) Sample location noted?	☑	☐	☐	
d) Sample depth indicated (~~Soils~~)? Air	☑	☐	☐	
e) Sample type indicated (grab/~~composite~~)?	☑	☐	☐	
f) Field QC noted?	☐	☐	☑	
g) Field parameters collected (note types)?	☑	☐	☐	PID
h) Field Calibration within control limits?	☑	☐	☐	
i) Notations of unacceptable field conditions/performances from field logs or field notes?	☐	☑	☐	
j) Does the laboratory narrative indicate deficiencies?	☑	☐	☐	

Note Deficiencies: SV-2 SIM Data was removed due to it being loaded incorrectly on the analytical instrumentation. SV2Full Scan is reported in another SDG.

Chain-of-Custody (COC)	YES	NO	NA	COMMENTS
a) Was the COC properly completed?	☑	☐	☐	
b) Was the COC signed by both field and laboratory personnel?	☑	☐	☐	
c) Were samples received in good condition?	☑	☐	☐	

General (reference QAPP or Method)	YES	NO	NA	COMMENTS
a) Were hold times met for sample pretreatment?	☑	☐	☐	HT = 14D
b) Were hold times met for sample analysis?	☑	☐	☐	
c) Were the correct preservatives used?	☐	☐	☑	
d) Was the correct method used?	☑	☐	☐	
e) Were appropriate reporting limits achieved?	☐	☑	☐	SV-1 high due to high level
f) Were any sample dilutions noted?	☐	☑	☐	matrix interference.
g) Were any matrix problems noted?	☑	☐	☐	hydrocarbon matrix interference.

QA LEVEL II - ORGANIC DATA EVALUATION CHECKLIST

Blanks	***YES***	***NO***	***NA***	***COMMENTS***
a) Were analytes detected in the method blank(s)?	☐	☑	☐	
b) Were analytes detected in the field blank(s)?	☐	☐	☑	
c) Were analytes detected in the equipment blank(s)?	☐	☑	☐	
d) Were analytes detected in the trip blank(s)?	☐	☐	☑	

Laboratory Control Sample (LCS)	***YES***	***NO***	***NA***	***COMMENTS***
a) Was a LCS analyzed once per SDG?	☑	☐	☐	
b) Were the proper compounds included in the LCS?	☑	☐	☐	
c) Was the LCS accuracy criteria met?	☑	☐	☐	

Duplicates	***YES***	***NO***	***NA***	***COMMENTS***
a) Were field duplicates collected (note original and duplicate sample names)?	☐	☑	☐	
b) Were field dup. precision criteria met (note RPD)?	☐	☐	☑	
c) Were lab duplicates analyzed (note original and duplicate samples)?	☐	☑	☐	
d) Were lab dup. precision criteria met (note RPD)?	☐	☐	☑	

Blind Standards	***YES***	***NO***	***NA***	***COMMENTS***
a) Was a blind standard used (indicate name, compounds included and concentrations)?	☐	☐	☑	
b) Was the %D within control limits?	☐	☐	☑	

Matrix Spike/Matrix Spike Duplicate (MS/MSD)	***YES***	***NO***	***NA***	***COMMENTS***
a) Was MS accuracy criteria met?	☐	☐	☑	
Recovery could not be calculated since sample contained high concentration of analyte?	☐	☐	☑	
b) Was MSD accuracy criteria met?	☐	☐	☑	
Recovery could not be calculated since sample contained high concentration of analyte?	☐	☐	☑	
c) Were MS/MSD precision criteria met?	☐	☐	☑	

Surrogate Spikes	***YES***	***NO***	***NA***	***COMMENTS***
a) Were surrogate recoveries within control limits?	☐	☑	☐	1,2-Dichloroethane-d4 Recovered high due to matrix interference.
b) Were surrogate recoveries not calculated due to dilutions?	☐	☐	☐	

Comments/Notes:

QA LEVEL II - ORGANIC DATA EVALUATION CHECKLIST

Data Qualification:

Sample Name	Constituent(s)	Result	Qualifier	Reason
no qualifiers				

Signature: _____ Date: 1/25/07

Air Toxics LTD.
AN ENVIRONMENTAL ANALYTICAL LABORATORY

WORK ORDER #: 0611634AR1

Work Order Summary

CLIENT:	Mr. Mark Haddock Golder Associates, Inc. 820 South Main Street Suite 100 St. Charles, MO 63301	**BILL TO:**	Mr. Mark Haddock Golder Associates, Inc. 820 South Main Street Suite 100 St. Charles, MO 63301
PHONE:	(636)-724-9191	**P.O. #**	043-9670
FAX:	(636-724-9323	**PROJECT #**	043-9670 Solutta Soil Vapor Sampling Event
DATE RECEIVED:	11/30/2006	**CONTACT:**	Brandon Dunmore
DATE COMPLETED:	01/25/2007		
DATE REISSUED:	01/25/2007		

FRACTION #	NAME	TEST	RECEIPT VAC./PRES.
01A	SV-1 Wiese	Modified TO-15 SIM	5.0 "Hg
03A	Lab Blank	Modified TO-15 SIM	NA
04A	CCV	Modified TO-15 SIM	NA
05A	LCS	Modified TO-15 SIM	NA

CERTIFIED BY: Linda D. Trumore DATE: 01/25/07

Laboratory Director

Certfication numbers: CA NELAP - 02110CA, LA NELAP/LELAP- AI 30763, NJ NELAP - CA004
NY NELAP - 11291, UT NELAP - 9166389892
Name of Accrediting Agency: NELAP/Florida Department of Health, Scope of Application: Clean Air Act,
Accreditation number: E87680, Effective date: 07/01/06, Expiration date: 06/30/07
Air Toxics Ltd. certifies that the test results contained in this report meet all requirements of the NELAC standards

180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 95630
(916) 985-1000 . (800) 985-5955 . FAX (916) 985-1020

LABORATORY NARRATIVE
Modified TO-15 SIM
Golder Associates, Inc.
Workorder# 0611634AR1

Two 6 Liter Summa Special (100% Certified) samples were received on November 30, 2006. The laboratory performed analysis via modified EPA Method TO-15 using GC/MS in the SIM acquisition mode. The method involves concentrating up to 0.5 liters of air. The concentrated aliquot is then flash vaporized and swept through a water management system to remove water vapor. Following dehumidification, the sample passes directly into the GC/MS for analysis.

Method modifications taken to run these samples are summarized in the below table. Specific project requirements may over-ride the ATL modifications.

Requirement	*TO-15*	*ATL Modifications*
ICAL %RSD acceptance criteria	</=30% RSD with 2 compounds allowed out to < 40% RSD	Project specific; default criteria is </=30% RSD with 10% of compounds allowed out to < 40% RSD
Daily Calibration	+- 30% Difference	Project specific; default criteria is </= 30% Difference with 10% of compounds allowed out up to </=40%.; flag and narrate outliers
Blank and standards	Zero air	Nitrogen
Method Detection Limit	Follow 40CFR Pt.136 App. B	The MDL met all relevant requirements in Method TO-15 (statistical MDL less than the LOQ). The concentration of the spiked replicate may have exceeded 10X the calculated MDL in some cases

Receiving Notes

There were no receiving discrepancies.

Analytical Notes

The recovery of surrogate 1,2-Dichloroethane-d4 in samples SV-1 Wiese and SV-2 Wiese was outside control limits due to high level hydrocarbon matrix interference. Data is reported as qualified.

THE WORK ORDER WAS REISSUED ON 01/25/2007 IN ORDER TO REMOVE THE ANALYTICAL RESULTS FOR SAMPLE SV-2 WIESE FROM THIS REPORT. UPON FURTHER REVIEW OF THE ANALYTICAL DATA, SAMPLE SV-2 WIESE WAS DETERMINED TO HAVE BEEN LOADED INCORRECTLY ON THE ANALYTICAL INSTRUMENTATION.

Definition of Data Qualifying Flags

Eight qualifiers may have been used on the data analysis sheets and indicates as follows:

B - Compound present in laboratory blank greater than reporting limit (background subtraction not performed).

J - Estimated value.

E - Exceeds instrument calibration range.

S - Saturated peak.

Q - Exceeds quality control limits.

U - Compound analyzed for but not detected above the reporting limit.
UJ- Non-detected compound associated with low bias in the CCV
N - The identification is based on presumptive evidence.

File extensions may have been used on the data analysis sheets and indicates as follows:
a-File was requantified
b-File was quantified by a second column and detector
r1-File was requantified for the purpose of reissue

Air Toxics LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Summary of Detected Compounds
MODIFIED EPA METHOD TO-15 GC/MS SIM

Client Sample ID: SV-1 Wiese

Lab ID#: 0611634AR1-01A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Trichloroethene	0.32	72	1.7	380

Air Toxics LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: SV-1 Wiese

Lab ID#: 0611634AR1-01A

MODIFIED EPA METHOD TO-15 GC/MS SIM

File Name:	6121118	Date of Collection:	11/29/06
Dil. Factor:	16.1	Date of Analysis:	12/12/06 01:46 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Trichloroethene	0.32	72	1.7	380
1,2-Dichloroethane	0.32	Not Detected	1.3	Not Detected
1,2-Dibromoethane (EDB)	0.32	Not Detected	2.5	Not Detected
1,1,2,2-Tetrachloroethane	0.32	Not Detected	2.2	Not Detected

Q = Exceeds Quality Control limits

Container Type: 6 Liter Summa Special (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	564 Q	70-130
Toluene-d8	104	70-130
4-Bromofluorobenzene	103	70-130

Air Toxics LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: Lab Blank

Lab ID#: 0611634AR1-03A

MODIFIED EPA METHOD TO-15 GC/MS SIM

File Name:	6121106	Date of Collection: NA	
Dil. Factor:	1.00	Date of Analysis:	12/11/06 12:13 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Trichloroethene	0.020	Not Detected	0.11	Not Detected
1,2-Dichloroethane	0.020	Not Detected	0.081	Not Detected
1,2-Dibromoethane (EDB)	0.020	Not Detected	0.15	Not Detected
1,1,2,2-Tetrachloroethane	0.020	Not Detected	0.14	Not Detected

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	98	70-130
Toluene-d8	101	70-130
4-Bromofluorobenzene	100	70-130

Air Toxics LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: CCV

Lab ID#: 0611634AR1-04A

MODIFIED EPA METHOD TO-15 GC/MS SIM

File Name:	6121102	Date of Collection: NA	
Dil. Factor:	1.00	Date of Analysis: 12/11/06 08:18 AM	

Compound	%Recovery
Trichloroethene	84
1,2-Dichloroethane	83
1,2-Dibromoethane (EDB)	89
1,1,2,2-Tetrachloroethane	90

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	89	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	105	70-130

Air Toxics LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: LCS

Lab ID#: 0611634AR1-05A

MODIFIED EPA METHOD TO-15 GC/MS SIM

File Name:	6121103	Date of Collection: NA	
Dil. Factor:	1.00	Date of Analysis: 12/11/06 09:07 AM	

Compound	%Recovery
Trichloroethene	89
1,2-Dichloroethane	92
1,2-Dibromoethane (EDB)	101
1,1,2,2-Tetrachloroethane	102

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	92	70-130
Toluene-d8	99	70-130
4-Bromofluorobenzene	102	70-130

@ AIR TOXICS LTD.
AN ENVIRONMENTAL ANALYTICAL LABORATORY

CHAIN-OF-CUSTODY RECORD

Sample Transportation Notice
Relinquishing signature on this document indicates that sample is being shipped in compliance with all applicable local, State, Federal, national, and international laws, regulations and ordinances of any kind. Air Toxics Limited assumes no liability with respect to the collection, handling or shipping of these samples. Relinquishing signature also indicates agreement to hold harmless, defend, and indemnify Air Toxics Limited against any claim, demand, or action, of any kind, related to the collection, handling, or shipping of samples. D.O.T. Hotline (800) 467-4922.

180 BLUE RAVINE ROAD, SUITE B
FOLSOM, CA 95630-4719
(916) 985-1000 FAX (916) 985-1020

Contact Person: Justin White
Company: Golder Associates Email: jcwhite@golder.com
Address: 820 S. Main St City: St. Charles State: MO Zip: 63301
Phone: 636-724-9191 Fax: 636-724-9323
Collected by: (Signature) Justin White

Project Info:
P.O. # 043-9670
Project # 043-9670
Project Name: Solutia Soil Vapor Sampling Event

Turn Around Time:
☒ Normal
☐ Rush
specify

Lab Use Only
Pressurized by: VHL
Date: 12/5/06
Pressurization Gas: (N2) He

Lab I.D.	Field Sample I.D. (Location)	Can#	Date	Time	Analyses Requested	Canister Pressure/Vacuum Initial	Final	Receipt	Final (psi)
01A	SV-1 Wiese	96107	11/29/06	1208	TO-15 HiLo (golder quote)	29.5	5.0	5.0	5.0
02A	SV-2 Wiese	3477	11/29/06	1548	TO-15 HiLo (Refer to golder quote)	29.2	5.0	5.0	✓

Relinquished by: (signature)	Date/Time	Received by: (signature)	Date/Time	Notes:
Justin White	1830 11/29/06	T. LaFleur ATL	11/30/06 0900	
Relinquished by: (signature)	Date/Time	Received by: (signature)	Date/Time	
Relinquished by: (signature)	Date/Time	Received by: (signature)	Date/Time	

Lab Use Only	Shipper Name	Air Bill #	Temp (°C)	Condition	Customer Seals Intact?	Work Order #
	Fed Ex	8598 6477 1768	NA	good	Yes No (None)	0611634

Form 1293 rev.10

QA LEVEL II - ORGANIC DATA EVALUATION CHECKLIST

Company Name: Golder Associates
Project Manager: M. Haddock
Project Name: Soluna Soil Vapor Sampling Event
Project Number: 043-9070
Reviewer: J. White
Validation Date: 1/25/07

Laboratory: AirToxic
SDG #: 0611634BR1
Analytical Method (type and no.): TO-15 Full Scan
Matrix: ☒ Air ☐ Soil/Sed ☐ Water ☐ Waste ☐
Sample Names: SV-1, SV-2

NOTE: Please provide calculation in Comment areas or on the back (if on the back please indicate in comment areas).

Field Information	YES	NO	NA	COMMENTS
a) Sampling dates noted?	☑	☐	☐	
b) Sampling team indicated?	☑	☐	☐	
c) Sample location noted?	☑	☐	☐	
d) Sample depth indicated (~~Soils~~)? Air	☑	☐	☐	
e) Sample type indicated (grab/composite)?	☑	☐	☐	
f) Field QC noted?	☐	☐	☑	
g) Field parameters collected (note types)?	☑	☐	☐	PID
h) Field Calibration within control limits?	☑	☐	☐	
i) Notations of unacceptable field conditions/performances from field logs or field notes?	☐	☑	☐	
j) Does the laboratory narrative indicate deficiencies?	☐	☑	☐	

Note Deficiencies:

Chain-of-Custody (COC)	YES	NO	NA	COMMENTS
a) Was the COC properly completed?	☑	☐	☐	
b) Was the COC signed by both field and laboratory personnel?	☑	☐	☐	
c) Were samples received in good condition?	☑	☐	☐	

General (reference QAPP or Method)	YES	NO	NA	COMMENTS
a) Were hold times met for sample pretreatment?	☑	☐	☐	HT = 14D
b) Were hold times met for sample analysis?	☑	☐	☐	
c) Were the correct preservatives used?	☐	☐	☑	
d) Was the correct method used?	☑	☐	☐	
e) Were appropriate reporting limits achieved?	☐	☑	☐	SV-1 + SV-2 high
f) Were any sample dilutions noted?	☑	☐	☐	due to high level hydrocarbon
g) Were any matrix problems noted?	☑	☐	☐	matrix interference.

$\frac{(X-Y)}{\frac{(X+Y)}{2}} \times 100$

QA LEVEL II - ORGANIC DATA EVALUATION CHECKLIST

Blanks	***YES***	***NO***	***NA***	***COMMENTS***
a) Were analytes detected in the method blank(s)?	☐	☑	☐	
b) Were analytes detected in the field blank(s)?	☐	☐	☑	
c) Were analytes detected in the equipment blank(s)?	☑	☐	☐	no qualifiers (5x rule)
d) Were analytes detected in the trip blank(s)?	☐	☐	☑	

Laboratory Control Sample (LCS)	***YES***	***NO***	***NA***	***COMMENTS***
a) Was a LCS analyzed once per SDG?	☑	☐	☐	
b) Were the proper compounds included in the LCS?	☑	☐	☐	
c) Was the LCS accuracy criteria met?	☐	☑	☐	cis-1,3-Dichloropropane 1,2,4-Trimethylbenzene recovery low.

Duplicates	***YES***	***NO***	***NA***	***COMMENTS***
a) Were field duplicates collected (note original and duplicate sample names)?	☐	☑	☐	
b) Were field dup. precision criteria met (note RPD)?	☐	☐	☑	
c) Were lab duplicates analyzed (note original and duplicate samples)?	☑	☐	☐	
d) Were lab dup. precision criteria met (note RPD)?	☑	☐	☐	< 25% RPD

Blind Standards	***YES***	***NO***	***NA***	***COMMENTS***
a) Was a blind standard used (indicate name, compounds included and concentrations)?	☐	☐	☑	
b) Was the %D within control limits?	☐	☐	☑	

Matrix Spike/Matrix Spike Duplicate (MS/MSD)	***YES***	***NO***	***NA***	***COMMENTS***
a) Was MS accuracy criteria met?	☐	☐	☑	
Recovery could not be calculated since sample contained high concentration of analyte?	☐	☐	☑	
b) Was MSD accuracy criteria met?	☐	☐	☑	
Recovery could not be calculated since sample contained high concentration of analyte?	☐	☐	☑	
c) Were MS/MSD precision criteria met?	☐	☐	☑	

Surrogate Spikes	***YES***	***NO***	***NA***	***COMMENTS***
a) Were surrogate recoveries within control limits?	☐	☑	☐	high by 2%, no qualifiers
b) Were surrogate recoveries not calculated due to dilutions?	☐	☐	☑	

Comments/Notes:

QA LEVEL II - ORGANIC DATA EVALUATION CHECKLIST

Data Qualification:

Sample Name	Constituent(s)	Result	Qualifier	Reason
No Qualifiers				

Signature: _____ Date: 1/25/07

Air Toxics LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

WORK ORDER #: 0611634BR1

Work Order Summary

CLIENT:	Mr. Mark Haddock Golder Associates, Inc. 820 South Main Street Suite 100 St. Charles, MO 63301	**BILL TO:**	Mr. Mark Haddock Golder Associates, Inc. 820 South Main Street Suite 100 St. Charles, MO 63301
PHONE:	(636)-724-9191	**P.O. #**	043-9670
FAX:	(636-724-9323	**PROJECT #**	043-9670 Solutta Soil Vapor Sampling Event
DATE RECEIVED:	11/30/2006	**CONTACT:**	Brandon Dunmore
DATE COMPLETED:	01/25/2007		
DATE REISSUED:	01/23/2007		

FRACTION #	NAME	TEST	RECEIPT VAC./PRES.
01A	SV-1 Wiese	Modified TO-15	5.0 "Hg
01AA	SV-1 Wiese Duplicate	Modified TO-15	5.0 "Hg
02A	SV-2 Wiese	Modified TO-15	5.0 "Hg
02B	SV-2 Wiese	Modified TO-15	5.0 "Hg
03A	Lab Blank	Modified TO-15	NA
04A	CCV	Modified TO-15	NA
05A	LCS	Modified TO-15	NA

CERTIFIED BY: Linda D. Truman DATE: 01/25/07

Laboratory Director

Certfication numbers: CA NELAP - 02110CA, LA NELAP/LELAP- AI 30763, NJ NELAP - CA004
NY NELAP - 11291, UT NELAP - 9166389892
Name of Accrediting Agency: NELAP/Florida Department of Health, Scope of Application: Clean Air Act,
Accreditation number: E87680, Effective date: 07/01/06, Expiration date: 06/30/07
Air Toxics Ltd. certifies that the test results contained in this report meet all requirements of the NELAC standards

180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 95630
(916) 985-1000 (800) 985-5955 FAX (916) 985-1020

LABORATORY NARRATIVE
Modified TO-15
Golder Associates, Inc.
Workorder# 0611634BR1

Two 6 Liter Summa Special (100% Certified) samples were received on November 30, 2006. The laboratory performed analysis via modified EPA Method TO-15 using GC/MS in the full scan mode. The method involves concentrating up to 0.2 liters of air. The concentrated aliquot is then flash vaporized and swept through a water management system to remove water vapor. Following dehumidification, the sample passes directly into the GC/MS for analysis.

Method modifications taken to run these samples are summarized in the below table. Specific project requirements may over-ride the ATL modifications.

Requirement	*TO-15*	*ATL Modifications*
Daily CCV	+- 30% Difference	</= 30% Difference with two allowed out up to </=40%.; flag and narrate outliers
Sample collection media	Summa canister	ATL recommends use of summa canisters to insure data defensibility, but will report results from Tedlar bags at client request
Method Detection Limit	Follow 40CFR Pt.136 App. B	The MDL met all relevant requirements in Method TO-15 (statistical MDL less than the LOQ). The concentration of the spiked replicate may have exceeded 10X the calculated MDL in some cases

Receiving Notes

There were no receiving discrepancies.

Analytical Notes

All Quality Control Limit failures and affected sample results are noted by flags. Each flag is defined at the bottom of this Case Narrative and on each Sample Result Summary page. Target compound non-detects in the samples that are associated with high bias in QC analyses have not been flagged.

The reported LCS for each daily batch has been derived from more than one analytical file.

The recovery of surrogate 1,2-Dichloroethane-d4 in sample SV-1 Wiese was outside control limits due to high level hydrocarbon matrix interference. Data is reported as qualified.

By client request, sample SV-2 Wiese was analyzed twice to accurately determine high-level compounds and acheive lower reporting limits for the remaining compounds. The higher concentration compounds may be reported with an "E" flag indicating the compound exceeds the calibration range. Both analyses and associated QC are reported.

The reported CCV for each daily batch may be derived from more than one analytical file due to the client's request for non-standard compounds.

Non-standard compounds may have different acceptance criteria than the standard TO-14A/TO-15

compound list as per contract or verbal agreement.

THE WORKORDER WAS RE-ISSUED ON 01/25/07 TO REMOVE THE CLIENT SPECIFIED SIM COMPOUNDS FROM THE REPORTING LIST IN SAMPLES SV-1 WIESE AND SV-1 WIESE DUPLICATE. THESE COMPOUNDS WERE INITIALLY REPORTED IN THIS WORK ORDER DUE TO LABORATORY ERROR.

THE FOLLOWING NARRATIVE WAS ALSO ADDED AS PART OF THE 01/25/07 REISSUE:

SAMPLE SV-2 WIESE WAS TRANSFERRED FROM WORK ORDER 0611634A (SIM ANALYSIS) TO THIS WORK ORDER (FULL SCAN ANALYSIS) DUE TO HIGH LEVELS OF TARGET COMPOUNDS. ALL COMPOUNDS WERE REPORTED BY TO-15 FULL SCAN FOR THIS SAMPLE.

Definition of Data Qualifying Flags

Eight qualifiers may have been used on the data analysis sheets and indicates as follows:

B - Compound present in laboratory blank greater than reporting limit (background subtraction not performed).

J - Estimated value.

E - Exceeds instrument calibration range.

S - Saturated peak.

Q - Exceeds quality control limits.

U - Compound analyzed for but not detected above the reporting limit.

UJ- Non-detected compound associated with low bias in the CCV

N - The identification is based on presumptive evidence.

File extensions may have been used on the data analysis sheets and indicates as follows:

a-File was requantified

b-File was quantified by a second column and detector

r1-File was requantified for the purpose of reissue

Summary of Detected Compounds
MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

Client Sample ID: SV-1 Wiese

Lab ID#: 0611634BR1-01A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Vinyl Chloride	40	9100	100	23000
trans-1,2-Dichloroethene	40	78	160	310
Hexane	40	960	140	3400
cis-1,2-Dichloroethene	40	2800	160	11000
Cyclohexane	40	260	140	910
Benzene	40	920	130	3000
Heptane	40	190	160	790
Toluene	40	76	150	290
Tetrachloroethene	40	130	270	890
Chlorobenzene	40	340	180	1600
1,3-Dichlorobenzene	40	82	240	490
1,4-Dichlorobenzene	40	180	240	1100

Client Sample ID: SV-1 Wiese Duplicate

Lab ID#: 0611634BR1-01AA

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Vinyl Chloride	40	7300	100	19000
trans-1,2-Dichloroethene	40	71	160	280
Hexane	40	790	140	2800
cis-1,2-Dichloroethene	40	2300	160	9200
Cyclohexane	40	220	140	750
Benzene	40	770	130	2500
Heptane	40	160	160	640
Toluene	40	74	150	280
Tetrachloroethene	40	110	270	780
Chlorobenzene	40	290	180	1300
1,3-Dichlorobenzene	40	78	240	470
1,4-Dichlorobenzene	40	170	240	1000

Client Sample ID: SV-2 Wiese

Lab ID#: 0611634BR1-02A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Vinyl Chloride	160	1400	410	3500
Hexane	160	2400	570	8600

Summary of Detected Compounds
MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

Client Sample ID: SV-2 Wiese

Lab ID#: 0611634BR1-02A

Cyclohexane	160	600	550	2100
Benzene	160	240	510	780
Heptane	160	820	660	3400
Chlorobenzene	160	1700	740	8000
1,2-Dichlorobenzene	160	260	970	1600
Naphthalene	640	3200	3400	17000

Client Sample ID: SV-2 Wiese

Lab ID#: 0611634BR1-02B

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Vinyl Chloride	13	1200	34	3000
Hexane	13	2200	47	7600
cis-1,2-Dichloroethene	13	51	53	200
Cyclohexane	13	530	46	1800
Benzene	13	240	43	750
Heptane	13	650	55	2700
Trichloroethene	13	64	72	340
Toluene	13	82	50	310
Tetrachloroethene	13	56	91	380
Chlorobenzene	13	1600	62	7300
Ethyl Benzene	13	61	58	270
m,p-Xylene	13	76	58	330
o-Xylene	13	37	58	160
4-Ethyltoluene	13	16	66	78
1,4-Dichlorobenzene	13	100	80	630
1,2-Dichlorobenzene	13	300	80	1800
1,2,4-Trichlorobenzene	54	170	400	1300
Naphthalene	54	3600 E	280	19000 E

Air Toxics LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: SV-1 Wiese

Lab ID#: 0611634BR1-01A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	8121529	Date of Collection:	11/29/06
Dil. Factor:	80.5	Date of Analysis:	12/16/06 06:42 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Freon 12	40	Not Detected	200	Not Detected
Freon 114	40	Not Detected	280	Not Detected
Chloromethane	160	Not Detected	330	Not Detected
Vinyl Chloride	40	9100	100	23000
1,3-Butadiene	40	Not Detected	89	Not Detected
Bromomethane	40	Not Detected	160	Not Detected
Chloroethane	40	Not Detected	110	Not Detected
Freon 11	40	Not Detected	230	Not Detected
Ethanol	160	Not Detected	300	Not Detected
Freon 113	40	Not Detected	310	Not Detected
1,1-Dichloroethene	40	Not Detected	160	Not Detected
Acetone	160	Not Detected	380	Not Detected
2-Propanol	160	Not Detected	400	Not Detected
Carbon Disulfide	40	Not Detected	120	Not Detected
Methylene Chloride	40	Not Detected	140	Not Detected
Methyl tert-butyl ether	40	Not Detected U J	140	Not Detected U J
trans-1,2-Dichloroethene	40	78	160	310
Hexane	40	960	140	3400
1,1-Dichloroethane	40	Not Detected	160	Not Detected
2-Butanone (Methyl Ethyl Ketone)	40	Not Detected	120	Not Detected
cis-1,2-Dichloroethene	40	2800	160	11000
Tetrahydrofuran	40	Not Detected	120	Not Detected
Chloroform	40	Not Detected	200	Not Detected
1,1,1-Trichloroethane	40	Not Detected	220	Not Detected
Cyclohexane	40	260	140	910
Carbon Tetrachloride	40	Not Detected	250	Not Detected
Benzene	40	920	130	3000
Heptane	40	190	160	790
1,2-Dichloropropane	40	Not Detected	190	Not Detected
1,4-Dioxane	160	Not Detected	580	Not Detected
Bromodichloromethane	40	Not Detected	270	Not Detected
cis-1,3-Dichloropropene	40	Not Detected	180	Not Detected
4-Methyl-2-pentanone	40	Not Detected	160	Not Detected
Toluene	40	76	150	290
trans-1,3-Dichloropropene	40	Not Detected	180	Not Detected
1,1,2-Trichloroethane	40	Not Detected	220	Not Detected
Tetrachloroethene	40	130	270	890
2-Hexanone	160	Not Detected	660	Not Detected
Dibromochloromethane	40	Not Detected	340	Not Detected

Air Toxics LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: SV-1 Wiese

Lab ID#: 0611634BR1-01A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	8121529	Date of Collection:	11/29/06
Dil. Factor:	80.5	Date of Analysis:	12/16/06 06:42 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Chlorobenzene	40	340	180	1600
Ethyl Benzene	40	Not Detected	170	Not Detected
m,p-Xylene	40	Not Detected	170	Not Detected
o-Xylene	40	Not Detected	170	Not Detected
Styrene	40	Not Detected	170	Not Detected
Bromoform	40	Not Detected	420	Not Detected
Cumene	40	Not Detected	200	Not Detected
Propylbenzene	40	Not Detected	200	Not Detected
4-Ethyltoluene	40	Not Detected	200	Not Detected
1,3,5-Trimethylbenzene	40	Not Detected	200	Not Detected
1,2,4-Trimethylbenzene	40	Not Detected	200	Not Detected
1,3-Dichlorobenzene	40	82	240	490
1,4-Dichlorobenzene	40	180	240	1100
alpha-Chlorotoluene	40	Not Detected	210	Not Detected
1,2-Dichlorobenzene	40	Not Detected	240	Not Detected
1,2,4-Trichlorobenzene	160	Not Detected	1200	Not Detected
Hexachlorobutadiene	160	Not Detected	1700	Not Detected
Naphthalene	160	Not Detected	840	Not Detected
1,1,1,2-Tetrachloroethane	160	Not Detected	1100	Not Detected
1,2,3-Trichloropropane	160	Not Detected	970	Not Detected
Acetonitrile	400	Not Detected	680	Not Detected
Butylbenzene	160	Not Detected	880	Not Detected
Dibromomethane	160	Not Detected	1100	Not Detected
Ethyl Acetate	160	Not Detected	580	Not Detected
sec-Butylbenzene	160	Not Detected	880	Not Detected
Vinyl Acetate	160	Not Detected	570	Not Detected

UJ = Non-detected compound associated with low bias in the CCV

Q = Exceeds Quality Control limits of 70% to 130%, due to matrix effects

Container Type: 6 Liter Summa Special (100% Certified)

Surrogates	%Recovery	Method Limits
Toluene-d8	92	70-130
1,2-Dichloroethane-d4	132 Q	70-130
4-Bromofluorobenzene	105	70-130

Air Toxics LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: SV-1 Wiese Duplicate

Lab ID#: 0611634BR1-01AA

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	8121530	Date of Collection:	11/29/06
Dil. Factor:	80.5	Date of Analysis:	12/16/06 07:12 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Freon 12	40	Not Detected	200	Not Detected
Freon 114	40	Not Detected	280	Not Detected
Chloromethane	160	Not Detected	330	Not Detected
Vinyl Chloride	40	7300	100	19000
1,3-Butadiene	40	Not Detected	89	Not Detected
Bromomethane	40	Not Detected	160	Not Detected
Chloroethane	40	Not Detected	110	Not Detected
Freon 11	40	Not Detected	230	Not Detected
Ethanol	160	Not Detected	300	Not Detected
Freon 113	40	Not Detected	310	Not Detected
1,1-Dichloroethene	40	Not Detected	160	Not Detected
Acetone	160	Not Detected	380	Not Detected
2-Propanol	160	Not Detected	400	Not Detected
Carbon Disulfide	40	Not Detected	120	Not Detected
Methylene Chloride	40	Not Detected	140	Not Detected
Methyl tert-butyl ether	40	Not Detected U J	140	Not Detected U J
trans-1,2-Dichloroethene	40	71	160	280
Hexane	40	790	140	2800
1,1-Dichloroethane	40	Not Detected	160	Not Detected
2-Butanone (Methyl Ethyl Ketone)	40	Not Detected	120	Not Detected
cis-1,2-Dichloroethene	40	2300	160	9200
Tetrahydrofuran	40	Not Detected	120	Not Detected
Chloroform	40	Not Detected	200	Not Detected
1,1,1-Trichloroethane	40	Not Detected	220	Not Detected
Cyclohexane	40	220	140	750
Carbon Tetrachloride	40	Not Detected	250	Not Detected
Benzene	40	770	130	2500
Heptane	40	160	160	640
1,2-Dichloropropane	40	Not Detected	190	Not Detected
1,4-Dioxane	160	Not Detected	580	Not Detected
Bromodichloromethane	40	Not Detected	270	Not Detected
cis-1,3-Dichloropropene	40	Not Detected	180	Not Detected
4-Methyl-2-pentanone	40	Not Detected	160	Not Detected
Toluene	40	74	150	280
trans-1,3-Dichloropropene	40	Not Detected	180	Not Detected
1,1,2-Trichloroethane	40	Not Detected	220	Not Detected
Tetrachloroethene	40	110	270	780
2-Hexanone	160	Not Detected	660	Not Detected
Dibromochloromethane	40	Not Detected	340	Not Detected

Air Toxics LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: SV-1 Wiese Duplicate

Lab ID#: 0611634BR1-01AA

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	8121530	Date of Collection:	11/29/06
Dil. Factor:	80.5	Date of Analysis:	12/16/06 07:12 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Chlorobenzene	40	290	180	1300
Ethyl Benzene	40	Not Detected	170	Not Detected
m,p-Xylene	40	Not Detected	170	Not Detected
o-Xylene	40	Not Detected	170	Not Detected
Styrene	40	Not Detected	170	Not Detected
Bromoform	40	Not Detected	420	Not Detected
Cumene	40	Not Detected	200	Not Detected
Propylbenzene	40	Not Detected	200	Not Detected
4-Ethyltoluene	40	Not Detected	200	Not Detected
1,3,5-Trimethylbenzene	40	Not Detected	200	Not Detected
1,2,4-Trimethylbenzene	40	Not Detected	200	Not Detected
1,3-Dichlorobenzene	40	78	240	470
1,4-Dichlorobenzene	40	170	240	1000
alpha-Chlorotoluene	40	Not Detected	210	Not Detected
1,2-Dichlorobenzene	40	Not Detected	240	Not Detected
1,2,4-Trichlorobenzene	160	Not Detected	1200	Not Detected
Hexachlorobutadiene	160	Not Detected	1700	Not Detected
Naphthalene	160	Not Detected	840	Not Detected
1,1,1,2-Tetrachloroethane	160	Not Detected	1100	Not Detected
1,2,3-Trichloropropane	160	Not Detected	970	Not Detected
Acetonitrile	400	Not Detected	680	Not Detected
Butylbenzene	160	Not Detected	880	Not Detected
Dibromomethane	160	Not Detected	1100	Not Detected
Ethyl Acetate	160	Not Detected	580	Not Detected
sec-Butylbenzene	160	Not Detected	880	Not Detected
Vinyl Acetate	160	Not Detected	570	Not Detected

UJ = Non-detected compound associated with low bias in the CCV

Container Type: 6 Liter Summa Special (100% Certified)

Surrogates	%Recovery	Method Limits
Toluene-d8	92	70-130
1,2-Dichloroethane-d4	127	70-130
4-Bromofluorobenzene	98	70-130

Air Toxics LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: SV-2 Wiese

Lab ID#: 0611634BR1-02A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	8121531	Date of Collection:	11/29/06
Dil. Factor:	322	Date of Analysis:	12/16/06 07:42 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Freon 12	160	Not Detected	800	Not Detected
Freon 114	160	Not Detected	1100	Not Detected
Chloromethane	640	Not Detected	1300	Not Detected
Vinyl Chloride	160	1400	410	3500
1,3-Butadiene	160	Not Detected	360	Not Detected
Bromomethane	160	Not Detected	620	Not Detected
Chloroethane	160	Not Detected	420	Not Detected
Freon 11	160	Not Detected	900	Not Detected
Ethanol	640	Not Detected	1200	Not Detected
Freon 113	160	Not Detected	1200	Not Detected
1,1-Dichloroethene	160	Not Detected	640	Not Detected
Acetone	640	Not Detected	1500	Not Detected
2-Propanol	640	Not Detected	1600	Not Detected
Carbon Disulfide	160	Not Detected	500	Not Detected
Methylene Chloride	160	Not Detected	560	Not Detected
Methyl tert-butyl ether	160	Not Detected U J	580	Not Detected U J
trans-1,2-Dichloroethene	160	Not Detected	640	Not Detected
Hexane	160	2400	570	8600
1,1-Dichloroethane	160	Not Detected	650	Not Detected
2-Butanone (Methyl Ethyl Ketone)	160	Not Detected	470	Not Detected
cis-1,2-Dichloroethene	160	Not Detected	640	Not Detected
Tetrahydrofuran	160	Not Detected	470	Not Detected
Chloroform	160	Not Detected	790	Not Detected
1,1,1-Trichloroethane	160	Not Detected	880	Not Detected
Cyclohexane	160	600	550	2100
Carbon Tetrachloride	160	Not Detected	1000	Not Detected
Benzene	160	240	510	780
1,2-Dichloroethane	160	Not Detected	650	Not Detected
Heptane	160	820	660	3400
Trichloroethene	160	Not Detected	860	Not Detected
1,2-Dichloropropane	160	Not Detected	740	Not Detected
1,4-Dioxane	640	Not Detected	2300	Not Detected
Bromodichloromethane	160	Not Detected	1100	Not Detected
cis-1,3-Dichloropropene	160	Not Detected	730	Not Detected
4-Methyl-2-pentanone	160	Not Detected	660	Not Detected
Toluene	160	Not Detected	610	Not Detected
trans-1,3-Dichloropropene	160	Not Detected	730	Not Detected
1,1,2-Trichloroethane	160	Not Detected	880	Not Detected
Tetrachloroethene	160	Not Detected	1100	Not Detected

Air Toxics LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: SV-2 Wiese

Lab ID#: 0611634BR1-02A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	8121531	Date of Collection:	11/29/06
Dil. Factor:	322	Date of Analysis:	12/16/06 07:42 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
2-Hexanone	640	Not Detected	2600	Not Detected
Dibromochloromethane	160	Not Detected	1400	Not Detected
1,2-Dibromoethane (EDB)	160	Not Detected	1200	Not Detected
Chlorobenzene	160	1700	740	8000
Ethyl Benzene	160	Not Detected	700	Not Detected
m,p-Xylene	160	Not Detected	700	Not Detected
o-Xylene	160	Not Detected	700	Not Detected
Styrene	160	Not Detected	680	Not Detected
Bromoform	160	Not Detected	1700	Not Detected
Cumene	160	Not Detected	790	Not Detected
1,1,2,2-Tetrachloroethane	160	Not Detected	1100	Not Detected
Propylbenzene	160	Not Detected	790	Not Detected
4-Ethyltoluene	160	Not Detected	790	Not Detected
1,3,5-Trimethylbenzene	160	Not Detected	790	Not Detected
1,2,4-Trimethylbenzene	160	Not Detected	790	Not Detected
1,3-Dichlorobenzene	160	Not Detected	970	Not Detected
1,4-Dichlorobenzene	160	Not Detected	970	Not Detected
alpha-Chlorotoluene	160	Not Detected	830	Not Detected
1,2-Dichlorobenzene	160	260	970	1600
1,2,4-Trichlorobenzene	640	Not Detected	4800	Not Detected
Hexachlorobutadiene	640	Not Detected	6900	Not Detected
Naphthalene	640	3200	3400	17000
1,1,1,2-Tetrachloroethane	640	Not Detected	4400	Not Detected
1,2,3-Trichloropropane	640	Not Detected	3900	Not Detected
Acetonitrile	1600	Not Detected	2700	Not Detected
Butylbenzene	640	Not Detected	3500	Not Detected
Dibromomethane	640	Not Detected	4600	Not Detected
Ethyl Acetate	640	Not Detected	2300	Not Detected
sec-Butylbenzene	640	Not Detected	3500	Not Detected
Vinyl Acetate	640	Not Detected	2300	Not Detected

UJ = Non-detected compound associated with low bias in the CCV

Container Type: 6 Liter Summa Special (100% Certified)

Surrogates	%Recovery	Method Limits
Toluene-d8	90	70-130
1,2-Dichloroethane-d4	110	70-130
4-Bromofluorobenzene	102	70-130

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: SV-2 Wiese

Lab ID#: 0611634BR1-02A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	8121531	Date of Collection: 11/29/06
Dil. Factor:	322	Date of Analysis: 12/16/06 07:42 AM

Air Toxics LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: SV-2 Wiese

Lab ID#: 0611634BR1-02B

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	8121533	Date of Collection:	11/29/06
Dil. Factor:	26.8	Date of Analysis:	12/16/06 09:16 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Freon 12	13	Not Detected	66	Not Detected
Freon 114	13	Not Detected	94	Not Detected
Chloromethane	54	Not Detected	110	Not Detected
Vinyl Chloride	13	1200	34	3000
1,3-Butadiene	13	Not Detected	30	Not Detected
Bromomethane	13	Not Detected	52	Not Detected
Chloroethane	13	Not Detected	35	Not Detected
Freon 11	13	Not Detected	75	Not Detected
Ethanol	54	Not Detected	100	Not Detected
Freon 113	13	Not Detected	100	Not Detected
1,1-Dichloroethene	13	Not Detected	53	Not Detected
Acetone	54	Not Detected	130	Not Detected
2-Propanol	54	Not Detected	130	Not Detected
Carbon Disulfide	13	Not Detected	42	Not Detected
Methylene Chloride	13	Not Detected	46	Not Detected
Methyl tert-butyl ether	13	Not Detected U J	48	Not Detected U J
trans-1,2-Dichloroethene	13	Not Detected	53	Not Detected
Hexane	13	2200	47	7600
1,1-Dichloroethane	13	Not Detected	54	Not Detected
2-Butanone (Methyl Ethyl Ketone)	13	Not Detected	40	Not Detected
cis-1,2-Dichloroethene	13	51	53	200
Tetrahydrofuran	13	Not Detected	40	Not Detected
Chloroform	13	Not Detected	65	Not Detected
1,1,1-Trichloroethane	13	Not Detected	73	Not Detected
Cyclohexane	13	530	46	1800
Carbon Tetrachloride	13	Not Detected	84	Not Detected
Benzene	13	240	43	750
1,2-Dichloroethane	13	Not Detected	54	Not Detected
Heptane	13	650	55	2700
Trichloroethene	13	64	72	340
1,2-Dichloropropane	13	Not Detected	62	Not Detected
1,4-Dioxane	54	Not Detected	190	Not Detected
Bromodichloromethane	13	Not Detected	90	Not Detected
cis-1,3-Dichloropropene	13	Not Detected	61	Not Detected
4-Methyl-2-pentanone	13	Not Detected	55	Not Detected
Toluene	13	82	50	310
trans-1,3-Dichloropropene	13	Not Detected	61	Not Detected
1,1,2-Trichloroethane	13	Not Detected	73	Not Detected
Tetrachloroethene	13	56	91	380

Air Toxics LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: SV-2 Wiese

Lab ID#: 0611634BR1-02B

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	8121533	Date of Collection:	11/29/06
Dil. Factor:	26.8	Date of Analysis:	12/16/06 09:16 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
2-Hexanone	54	Not Detected	220	Not Detected
Dibromochloromethane	13	Not Detected	110	Not Detected
1,2-Dibromoethane (EDB)	13	Not Detected	100	Not Detected
Chlorobenzene	13	1600	62	7300
Ethyl Benzene	13	61	58	270
m,p-Xylene	13	76	58	330
o-Xylene	13	37	58	160
Styrene	13	Not Detected	57	Not Detected
Bromoform	13	Not Detected	140	Not Detected
Cumene	13	Not Detected	66	Not Detected
1,1,2,2-Tetrachloroethane	13	Not Detected	92	Not Detected
Propylbenzene	13	Not Detected	66	Not Detected
4-Ethyltoluene	13	16	66	78
1,3,5-Trimethylbenzene	13	Not Detected	66	Not Detected
1,2,4-Trimethylbenzene	13	Not Detected	66	Not Detected
1,3-Dichlorobenzene	13	Not Detected	80	Not Detected
1,4-Dichlorobenzene	13	100	80	630
alpha-Chlorotoluene	13	Not Detected	69	Not Detected
1,2-Dichlorobenzene	13	300	80	1800
1,2,4-Trichlorobenzene	54	170	400	1300
Hexachlorobutadiene	54	Not Detected	570	Not Detected
Naphthalene	54	3600 E	280	19000 E
1,1,1,2-Tetrachloroethane	54	Not Detected	370	Not Detected
1,2,3-Trichloropropane	54	Not Detected	320	Not Detected
Acetonitrile	130	Not Detected	220	Not Detected
Butylbenzene	54	Not Detected	290	Not Detected
Dibromomethane	54	Not Detected	380	Not Detected
Ethyl Acetate	54	Not Detected	190	Not Detected
sec-Butylbenzene	54	Not Detected	290	Not Detected
Vinyl Acetate	54	Not Detected	190	Not Detected

UJ = Non-detected compound associated with low bias in the CCV

E = Exceeds instrument calibration range.

Container Type: 6 Liter Summa Special (100% Certified)

Surrogates	%Recovery	Method Limits
Toluene-d8	91	70-130
1,2-Dichloroethane-d4	85	70-130
4-Bromofluorobenzene	106	70-130

Air Toxics LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: SV-2 Wiese

Lab ID#: 0611634BR1-02B

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	8121533	Date of Collection:	11/29/06
Dil. Factor:	26.8	Date of Analysis:	12/16/06 09:16 AM

Air Toxics LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: Lab Blank

Lab ID#: 0611634BR1-03A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	8121512	Date of Collection: NA	
Dil. Factor:	1.00	Date of Analysis: 12/15/06 05:31 PM	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Freon 12	0.50	Not Detected	2.5	Not Detected
Freon 114	0.50	Not Detected	3.5	Not Detected
Chloromethane	2.0	Not Detected	4.1	Not Detected
Vinyl Chloride	0.50	Not Detected	1.3	Not Detected
1,3-Butadiene	0.50	Not Detected	1.1	Not Detected
Bromomethane	0.50	Not Detected	1.9	Not Detected
Chloroethane	0.50	Not Detected	1.3	Not Detected
Freon 11	0.50	Not Detected	2.8	Not Detected
Ethanol	2.0	Not Detected	3.8	Not Detected
Freon 113	0.50	Not Detected	3.8	Not Detected
1,1-Dichloroethene	0.50	Not Detected	2.0	Not Detected
Acetone	2.0	Not Detected	4.8	Not Detected
2-Propanol	2.0	Not Detected	4.9	Not Detected
Carbon Disulfide	0.50	Not Detected	1.6	Not Detected
Methylene Chloride	0.50	Not Detected	1.7	Not Detected
Methyl tert-butyl ether	0.50	Not Detected U J	1.8	Not Detected U J
trans-1,2-Dichloroethene	0.50	Not Detected	2.0	Not Detected
Hexane	0.50	Not Detected	1.8	Not Detected
1,1-Dichloroethane	0.50	Not Detected	2.0	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.50	Not Detected	1.5	Not Detected
cis-1,2-Dichloroethene	0.50	Not Detected	2.0	Not Detected
Tetrahydrofuran	0.50	Not Detected	1.5	Not Detected
Chloroform	0.50	Not Detected	2.4	Not Detected
1,1,1-Trichloroethane	0.50	Not Detected	2.7	Not Detected
Cyclohexane	0.50	Not Detected	1.7	Not Detected
Carbon Tetrachloride	0.50	Not Detected	3.1	Not Detected
Benzene	0.50	Not Detected	1.6	Not Detected
1,2-Dichloroethane	0.50	Not Detected	2.0	Not Detected
Heptane	0.50	Not Detected	2.0	Not Detected
Trichloroethene	0.50	Not Detected	2.7	Not Detected
1,2-Dichloropropane	0.50	Not Detected	2.3	Not Detected
1,4-Dioxane	2.0	Not Detected	7.2	Not Detected
Bromodichloromethane	0.50	Not Detected	3.4	Not Detected
cis-1,3-Dichloropropene	0.50	Not Detected	2.3	Not Detected
4-Methyl-2-pentanone	0.50	Not Detected	2.0	Not Detected
Toluene	0.50	Not Detected	1.9	Not Detected
trans-1,3-Dichloropropene	0.50	Not Detected	2.3	Not Detected
1,1,2-Trichloroethane	0.50	Not Detected	2.7	Not Detected
Tetrachloroethene	0.50	Not Detected	3.4	Not Detected

Air Toxics LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: Lab Blank

Lab ID#: 0611634BR1-03A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	8121512	Date of Collection: NA	
Dil. Factor:	1.00	Date of Analysis: 12/15/06 05:31 PM	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
2-Hexanone	2.0	Not Detected	8.2	Not Detected
Dibromochloromethane	0.50	Not Detected	4.2	Not Detected
1,2-Dibromoethane (EDB)	0.50	Not Detected	3.8	Not Detected
Chlorobenzene	0.50	Not Detected	2.3	Not Detected
Ethyl Benzene	0.50	Not Detected	2.2	Not Detected
m,p-Xylene	0.50	Not Detected	2.2	Not Detected
o-Xylene	0.50	Not Detected	2.2	Not Detected
Styrene	0.50	Not Detected	2.1	Not Detected
Bromoform	0.50	Not Detected	5.2	Not Detected
Cumene	0.50	Not Detected	2.4	Not Detected
1,1,2,2-Tetrachloroethane	0.50	Not Detected	3.4	Not Detected
Propylbenzene	0.50	Not Detected	2.4	Not Detected
4-Ethyltoluene	0.50	Not Detected	2.4	Not Detected
1,3,5-Trimethylbenzene	0.50	Not Detected	2.4	Not Detected
1,2,4-Trimethylbenzene	0.50	Not Detected	2.4	Not Detected
1,3-Dichlorobenzene	0.50	Not Detected	3.0	Not Detected
1,4-Dichlorobenzene	0.50	Not Detected	3.0	Not Detected
alpha-Chlorotoluene	0.50	Not Detected	2.6	Not Detected
1,2-Dichlorobenzene	0.50	Not Detected	3.0	Not Detected
1,2,4-Trichlorobenzene	2.0	Not Detected	15	Not Detected
Hexachlorobutadiene	2.0	Not Detected	21	Not Detected
Naphthalene	2.0	Not Detected	10	Not Detected
1,1,1,2-Tetrachloroethane	2.0	Not Detected	14	Not Detected
1,2,3-Trichloropropane	2.0	Not Detected	12	Not Detected
Acetonitrile	5.0	Not Detected	8.4	Not Detected
Butylbenzene	2.0	Not Detected	11	Not Detected
Dibromomethane	2.0	Not Detected	14	Not Detected
Ethyl Acetate	2.0	Not Detected	7.2	Not Detected
sec-Butylbenzene	2.0	Not Detected	11	Not Detected
Vinyl Acetate	2.0	Not Detected	7.0	Not Detected

UJ = Non-detected compound associated with low bias in the CCV

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	91	70-130
1,2-Dichloroethane-d4	95	70-130
4-Bromofluorobenzene	98	70-130

Client Sample ID: Lab Blank

Lab ID#: 0611634BR1-03A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	8121512	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 12/15/06 05:31 PM

Air Toxics LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: CCV

Lab ID#: 0611634BR1-04A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	8121502	Date of Collection: NA	
Dil. Factor:	1.00	Date of Analysis: 12/15/06 10:00 AM	

Compound	%Recovery
Freon 12	85
Freon 114	104
Chloromethane	116
Vinyl Chloride	102
1,3-Butadiene	104
Bromomethane	88
Chloroethane	101
Freon 11	92
Ethanol	109
Freon 113	105
1,1-Dichloroethene	94
Acetone	101
2-Propanol	99
Carbon Disulfide	93
Methylene Chloride	102
Methyl tert-butyl ether	62 Q
trans-1,2-Dichloroethene	88
Hexane	95
1,1-Dichloroethane	92
2-Butanone (Methyl Ethyl Ketone)	76
cis-1,2-Dichloroethene	87
Tetrahydrofuran	84
Chloroform	89
1,1,1-Trichloroethane	85
Cyclohexane	82
Carbon Tetrachloride	89
Benzene	80
1,2-Dichloroethane	98
Heptane	83
Trichloroethene	92
1,2-Dichloropropane	80
1,4-Dioxane	75
Bromodichloromethane	91
cis-1,3-Dichloropropene	84
4-Methyl-2-pentanone	88
Toluene	83
trans-1,3-Dichloropropene	100
1,1,2-Trichloroethane	89
Tetrachloroethene	99

Air Toxics LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: CCV

Lab ID#: 0611634BR1-04A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	8121502	Date of Collection: NA	
Dil. Factor:	1.00	Date of Analysis: 12/15/06 10:00 AM	

Compound	%Recovery
2-Hexanone	90
Dibromochloromethane	109
1,2-Dibromoethane (EDB)	98
Chlorobenzene	86
Ethyl Benzene	93
m,p-Xylene	87
o-Xylene	94
Styrene	94
Bromoform	110
Cumene	91
1,1,2,2-Tetrachloroethane	84
Propylbenzene	94
4-Ethyltoluene	98
1,3,5-Trimethylbenzene	101
1,2,4-Trimethylbenzene	93
1,3-Dichlorobenzene	96
1,4-Dichlorobenzene	101
alpha-Chlorotoluene	98
1,2-Dichlorobenzene	94
1,2,4-Trichlorobenzene	82
Hexachlorobutadiene	98
Naphthalene	74
1,1,1,2-Tetrachloroethane	106
1,2,3-Trichloropropane	97
Acetonitrile	91
Butylbenzene	99
Dibromomethane	93
Ethyl Acetate	89
sec-Butylbenzene	97
Vinyl Acetate	88

Q = Exceeds Quality Control limits

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	92	70-130
1,2-Dichloroethane-d4	94	70-130
4-Bromofluorobenzene	114	70-130

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: CCV

Lab ID#: 0611634BR1-04A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	8121502	Date of Collection: NA	
Dil. Factor:	1.00	Date of Analysis: 12/15/06 10:00 AM	

Air Toxics LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: LCS

Lab ID#: 0611634BR1-05A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	8121503	Date of Collection: NA	
Dil. Factor:	1.00	Date of Analysis:	12/15/06 10:36 AM

Compound	%Recovery
Freon 12	85
Freon 114	104
Chloromethane	116
Vinyl Chloride	103
1,3-Butadiene	104
Bromomethane	90
Chloroethane	104
Freon 11	91
Ethanol	114
Freon 113	105
1,1-Dichloroethene	94
Acetone	101
2-Propanol	105
Carbon Disulfide	96
Methylene Chloride	102
Methyl tert-butyl ether	83
trans-1,2-Dichloroethene	91
Hexane	98
1,1-Dichloroethane	94
2-Butanone (Methyl Ethyl Ketone)	78
cis-1,2-Dichloroethene	92
Tetrahydrofuran	86
Chloroform	89
1,1,1-Trichloroethane	86
Cyclohexane	84
Carbon Tetrachloride	93
Benzene	84
1,2-Dichloroethane	102
Heptane	88
Trichloroethene	96
1,2-Dichloropropane	86
1,4-Dioxane	82
Bromodichloromethane	90
cis-1,3-Dichloropropene	58 Q
4-Methyl-2-pentanone	89
Toluene	89
trans-1,3-Dichloropropene	99
1,1,2-Trichloroethane	95
Tetrachloroethene	105

Air Toxics LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: LCS

Lab ID#: 0611634BR1-05A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	8121503	Date of Collection: NA	
Dil. Factor:	1.00	Date of Analysis: 12/15/06 10:36 AM	

Compound	%Recovery
2-Hexanone	92
Dibromochloromethane	97
1,2-Dibromoethane (EDB)	98
Chlorobenzene	95
Ethyl Benzene	106
m,p-Xylene	90
o-Xylene	86
Styrene	88
Bromoform	85
Cumene	89
1,1,2,2-Tetrachloroethane	94
Propylbenzene	92
4-Ethyltoluene	98
1,3,5-Trimethylbenzene	89
1,2,4-Trimethylbenzene	66 Q
1,3-Dichlorobenzene	111
1,4-Dichlorobenzene	112
alpha-Chlorotoluene	100
1,2-Dichlorobenzene	110
1,2,4-Trichlorobenzene	118
Hexachlorobutadiene	115
Naphthalene	98
1,1,1,2-Tetrachloroethane	Not Spiked
1,2,3-Trichloropropane	Not Spiked
Acetonitrile	Not Spiked
Butylbenzene	Not Spiked
Dibromomethane	Not Spiked
Ethyl Acetate	Not Spiked
sec-Butylbenzene	Not Spiked
Vinyl Acetate	90

Q = Exceeds Quality Control limits

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	96	70-130
1,2-Dichloroethane-d4	92	70-130
4-Bromofluorobenzene	107	70-130

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: LCS

Lab ID#: 0611634BR1-05A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	8121503	Date of Collection: NA	
Dil. Factor:	1.00	Date of Analysis: 12/15/06 10:36 AM	

@ AIR TOXICS LTD.
AN ENVIRONMENTAL ANALYTICAL LABORATORY

180 BLUE RAVINE ROAD, SUITE B
FOLSOM, CA 95630-4719
(916) 985-1000 FAX (916) 985-1020

Sample Transportation Notice
Relinquishing signature on this document indicates that sample is being shipped in compliance with all applicable local, State, Federal, national, and international laws, regulations and ordinances of any kind. Air Toxics Limited assumes no liability with respect to the collection, handling or shipping of these samples. Relinquishing signature also indicates agreement to hold harmless, defend, and indemnify Air Toxics Limited against any claim, demand, or action, of any kind, related to the collection, handling, or shipping of samples. D.O.T. Hotline (800) 467-4922.

CHAIN-OF-CUSTODY RECORD

Contact Person: Justin White
Company: Golder Associates Email: jcwhite@golder.com
Address: 820 S. Main St City: St. Charles State: MO Zip: 63301
Phone: 636-724-9191 Fax: 636-724-9323
Collected by: (Signature) Justin White

Project Info:
P.O. # 043-9670
Project # 043-9670
Project Name: Solutia Soil Vapor Sampling Event

Turn Around Time:
☒ Normal
☐ Rush
specify

Lab Use Only
Pressurized by: VAC
Date: 12/5/06
Pressurization Gas: N_2 He

Lab I.D.	Field Sample I.D. (Location)	Can#	Date	Time	Analyses Requested	Canister Pressure/Vacuum Initial	Final	Receipt	Final (psi)
01A	SV-1 Wiese	96107	11/29/06	1208	TO-15 HiLo (golder quote)	29.5	5.0	5.0	5.0
02A	SV-2 Wiese	3477	11/29/06	1548	TO-15 HiLo (Refer to golder quote)	29.2	5.0	5.0	

Relinquished by: (signature)	Date/Time	Received by: (signature)	Date/Time	Notes:
Justin White	1830 11/29/06	T. LaFleur ATL	12/30/06 0900	
Relinquished by: (signature)	Date/Time	Received by: (signature)	Date/Time	
Relinquished by: (signature)	Date/Time	Received by: (signature)	Date/Time	

Lab Use Only	Shipper Name	Air Bill #	Temp (°C)	Condition	Customer Seals Intact?	Work Order #
	Fed Ex	8598 0477 1768	NA	good	Yes No None	0611634

Form 1293 rev.10

QA LEVEL II - ORGANIC DATA EVALUATION CHECKLIST

Company Name: Golder Associates
Project Manager: M. Haddock
Project Name: Solutia Soil Vapor Sampling Event
Project Number: 043-9670
Reviewer: J. White
Validation Date: 1/11/07

Laboratory: Air Toxics LTD
SDG #: 0612090
Analytical Method (type and no.): TO-15 Full Scan (modified)
Matrix: [X] Air [ ] Soil/Sed [ ] Water [ ] Waste [ ] _____
Sample Names SV-3

NOTE: Please provide calculation in Comment areas or on the back (if on the back please indicate in comment areas).

Field Information	***YES***	***NO***	***NA***	***COMMENTS***
a) Sampling dates noted?	☑	☐	☐	
b) Sampling team indicated?	☑	☐	☐	
c) Sample location noted?	☑	☐	☐	
d) Sample depth indicated (Soils)? Air	☑	☐	☐	
e) Sample type indicated (grab/composite)?	☑	☐	☐	
f) Field QC noted?	☐	☐	☑	
g) Field parameters collected (note types)?	☑	☐	☐	PID
h) Field Calibration within control limits?	☑	☐	☐	
i) Notations of unacceptable field conditions/performances from field logs or field notes?	☐	☑	☐	
j) Does the laboratory narrative indicate deficiencies?	☐	☑	☐	

Note Deficiencies: _____

Chain-of-Custody (COC)	***YES***	***NO***	***NA***	***COMMENTS***
a) Was the COC properly completed?	☑	☐	☐	
b) Was the COC signed by both field and laboratory personnel?	☑	☐	☐	
c) Were samples received in good condition?	☑	☐	☐	

General (reference QAPP or Method)	***YES***	***NO***	***NA***	***COMMENTS***
a) Were hold times met for sample pretreatment?	☑	☐	☐	HT=14D
b) Were hold times met for sample analysis?	☑	☐	☐	HT=10D
c) Were the correct preservatives used?	☐	☐	☑	
d) Was the correct method used?	☑	☐	☐	
e) Were appropriate reporting limits achieved?	☐	☑	☐	high
f) Were any sample dilutions noted?	☐	☑	☐	
g) Were any matrix problems noted?	☐	☑	☐	

QA LEVEL II - ORGANIC DATA EVALUATION CHECKLIST

Blanks	***YES***	***NO***	***NA***	***COMMENTS***
a) Were analytes detected in the method blank(s)?	☐	☑	☐	
b) Were analytes detected in the field blank(s)?	☐	☐	☑	
c) Were analytes detected in the equipment blank(s)?	☑	☐	☐	no qualifiers (5x rule)
d) Were analytes detected in the trip blank(s)?	☐	☐	☑	

Laboratory Control Sample (LCS)	***YES***	***NO***	***NA***	***COMMENTS***
a) Was a LCS analyzed once per SDG?	☑	☐	☐	
b) Were the proper compounds included in the LCS?	☑	☐	☐	no Detects
c) Was the LCS accuracy criteria met?	☐	☑	☐	Cis-1,3-Dichloropropene + 1,2,4-Trimethylbenzene below limits

Duplicates	***YES***	***NO***	***NA***	***COMMENTS***
a) Were field duplicates collected (note original and duplicate sample names)?	☐	☑	☐	
b) Were field dup. precision criteria met (note RPD)?	☐	☐	☑	
c) Were lab duplicates analyzed (note original and duplicate samples)?	☐	☑	☐	
d) Were lab dup. precision criteria met (note RPD)?	☐	☐	☑	

Blind Standards	***YES***	***NO***	***NA***	***COMMENTS***
a) Was a blind standard used (indicate name, compounds included and concentrations)?	☐	☐	☑	
b) Was the %D within control limits?	☐	☐	☑	

Matrix Spike/Matrix Spike Duplicate (MS/MSD)	***YES***	***NO***	***NA***	***COMMENTS***
a) Was MS accuracy criteria met?	☐	☐	☑	
Recovery could not be calculated since sample contained high concentration of analyte?	☐	☐	☑	
b) Was MSD accuracy criteria met?	☐	☐	☑	
Recovery could not be calculated since sample contained high concentration of analyte?	☐	☐	☑	
c) Were MS/MSD precision criteria met?	☐	☐	☑	

Surrogate Spikes	***YES***	***NO***	***NA***	***COMMENTS***
a) Were surrogate recoveries within control limits?	☑	☐	☐	
b) Were surrogate recoveries not calculated due to dilutions?	☐	☐	☑	

Comments/Notes:

QA LEVEL II - ORGANIC DATA EVALUATION CHECKLIST

Data Qualification:

Sample Name	Constituent(s)	Result	Qualifier	Reason
No Qualifiers				

Signature: [signature]

Date: 1/11/07

Air Toxics LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

WORK ORDER #: 0612090

Work Order Summary

CLIENT:	Mr. Mark Haddock Golder Associates, Inc. 820 South Main Street Suite 100 St. Charles, MO 63301	**BILL TO:**	Mr. Mark Haddock Golder Associates, Inc 820 South Main Street Suite 100 St. Charles, MO 63301
PHONE:	(636)-724-9191	**P.O. #**	043-9670
FAX:	(636-724-9323	**PROJECT #**	043-9670 Solutia Soil Vapor Sampling Event
DATE RECEIVED:	12/05/2006	**CONTACT:**	Brandon Dunmore
DATE COMPLETED:	12/20/2006		

FRACTION #	NAME	TEST	RECEIPT VAC./PRES.
01A	SV-3 Wiese	Modified TO-15	3 0 "Hg
02A	Lab Blank	Modified TO-15	NA
03A	CCV	Modified TO-15	NA
04A	LCS	Modified TO-15	NA

CERTIFIED BY: _____ DATE: 12/20/06

Laboratory Director

Certfication numbers: CA NELAP - 02110CA, LA NELAP/LELAP- AI 30763, NJ NELAP - CA004
NY NELAP - 11291, UT NELAP - 9166389892
Name of Accrediting Agency: NELAP/Florida Department of Health, Scope of Application: Clean Air Act,
Accreditation number: E87680, Effective date: 07/01/06, Expiration date: 06/30/07
Air Toxics Ltd. certifies that the test results contained in this report meet all requirements of the NELAC standards

180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 95630
(916) 985-1000 (800) 985-5955 FAX (916) 985-1020

LABORATORY NARRATIVE
Modified TO-15
Golder Associates, Inc.
Workorder# 0612090

One 6 Liter Summa Special (100% Certified) sample was received on December 05, 2006. The laboratory performed analysis via modified EPA Method TO-15 using GC/MS in the full scan mode. The method involves concentrating up to 0.2 liters of air. The concentrated aliquot is then flash vaporized and swept through a water management system to remove water vapor. Following dehumidification, the sample passes directly into the GC/MS for analysis.

Method modifications taken to run these samples are summarized in the below table. Specific project requirements may over-ride the ATL modifications.

Requirement	*TO-15*	*ATL Modifications*
Daily CCV	+- 30% Difference	</= 30% Difference with two allowed out up to </=40% ; flag and narrate outliers
Sample collection media	Summa canister	ATL recommends use of summa canisters to insure data defensibility, but will report results from Tedlar bags at client request
Method Detection Limit	Follow 40CFR Pt.136 App B	The MDL met all relevant requirements in Method TO-15 (statistical MDL less than the LOQ). The concentration of the spiked replicate may have exceeded 10X the calculated MDL in some cases

Receiving Notes

There were no receiving discrepancies.

Analytical Notes

The reported CCV/LCS for each daily batch may be derived from more than one analytical file due to the client's request for non-standard compounds.

Non-standard compounds may have different acceptance criteria than the standard TO-14A/TO-15 compound list as per contract or verbal agreement.

Definition of Data Qualifying Flags

Eight qualifiers may have been used on the data analysis sheets and indicates as follows:

B - Compound present in laboratory blank greater than reporting limit (background subtraction no performed).

J - Estimated value.

E - Exceeds instrument calibration range.

S - Saturated peak.

Q - Exceeds quality control limits.

U - Compound analyzed for but not detected above the reporting limit.

UJ- Non-detected compound associated with low bias in the CCV
N - The identification is based on presumptive evidence.

File extensions may have been used on the data analysis sheets and indicates as follows:
a-File was requantified
b-File was quantified by a second column and detector
r1-File was requantified for the purpose of reissue

Air Toxics LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Summary of Detected Compounds
MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

Client Sample ID: SV-3 Wiese

Lab ID#: 0612090-01A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Vinyl Chloride	200	9400	510	24000
Carbon Disulfide	200	260	620	820
Hexane	200	2200	700	7900
cis-1,2-Dichloroethene	200	2500	790	9800
Cyclohexane	200	760	680	2600
2,2,4-Trimethylpentane	200	4600	930	22000
Benzene	200	13000	630	42000
Heptane	200	500	810	2000
Trichloroethene	200	1800	1100	9600
Toluene	200	7200	750	27000
Tetrachloroethene	200	5700	1300	38000
Chlorobenzene	200	70000	910	320000
Ethyl Benzene	200	680	860	2900
m,p-Xylene	200	640	860	2800
o-Xylene	200	210	860	920
1,3-Dichlorobenzene	200	600	1200	3600
1,4-Dichlorobenzene	200	6900	1200	42000
1,2-Dichlorobenzene	200	8100	1200	48000

Air Toxics LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: SV-3 Wiese

Lab ID#: 0612090-01A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**8121920**	**Date of Collection: 12/4/06**	
Dil. Factor:	**397**	**Date of Analysis: 12/20/06 12:41 AM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Freon 12	200	Not Detected	980	Not Detected
Freon 114	200	Not Detected	1400	Not Detected
Chloromethane	790	Not Detected	1600	Not Detected
Vinyl Chloride	200	9400	510	24000
1,3-Butadiene	200	Not Detected	440	Not Detected
Bromomethane	200	Not Detected	770	Not Detected
Chloroethane	200	Not Detected	520	Not Detected
Freon 11	200	Not Detected	1100	Not Detected
Ethanol	790	Not Detected	1500	Not Detected
Freon 113	200	Not Detected	1500	Not Detected
1,1-Dichloroethene	200	Not Detected	790	Not Detected
Acetone	790	Not Detected	1900	Not Detected
2-Propanol	790	Not Detected	2000	Not Detected
Carbon Disulfide	200	260	620	820
3-Chloropropene	790	Not Detected	2500	Not Detected
Methylene Chloride	200	Not Detected	690	Not Detected
Methyl tert-butyl ether	200	Not Detected	720	Not Detected
trans-1,2-Dichloroethene	200	Not Detected	790	Not Detected
Hexane	200	2200	700	7900
1,1-Dichloroethane	200	Not Detected	800	Not Detected
2-Butanone (Methyl Ethyl Ketone)	200	Not Detected	580	Not Detected
cis-1,2-Dichloroethene	200	2500	790	9800
Tetrahydrofuran	200	Not Detected	580	Not Detected
Chloroform	200	Not Detected	970	Not Detected
1,1,1-Trichloroethane	200	Not Detected	1100	Not Detected
Cyclohexane	200	760	680	2600
Carbon Tetrachloride	200	Not Detected	1200	Not Detected
2,2,4-Trimethylpentane	200	4600	930	22000
Benzene	200	13000	630	42000
1,2-Dichloroethane	200	Not Detected	800	Not Detected
Heptane	200	500	810	2000
Trichloroethene	200	1800	1100	9600
1,2-Dichloropropane	200	Not Detected	920	Not Detected
1,4-Dioxane	790	Not Detected	2900	Not Detected
Bromodichloromethane	200	Not Detected	1300	Not Detected
cis-1,3-Dichloropropene	200	Not Detected	900	Not Detected
4-Methyl-2-pentanone	200	Not Detected	810	Not Detected
Toluene	200	7200	750	27000
trans-1,3-Dichloropropene	200	Not Detected	900	Not Detected

Air Toxics LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: SV-3 Wiese

Lab ID#: 0612090-01A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**8121920**	**Date of Collection: 12/4/06**	
Dil. Factor:	**397**	**Date of Analysis: 12/20/06 12:41 AM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
1,1,2-Trichloroethane	200	Not Detected	1100	Not Detected
Tetrachloroethene	200	5700	1300	38000
2-Hexanone	790	Not Detected	3200	Not Detected
Dibromochloromethane	200	Not Detected	1700	Not Detected
1,2-Dibromoethane (EDB)	200	Not Detected	1500	Not Detected
Chlorobenzene	200	70000	910	320000
Ethyl Benzene	200	680	860	2900
m,p-Xylene	200	640	860	2800
o-Xylene	200	210	860	920
Styrene	200	Not Detected	840	Not Detected
Bromoform	200	Not Detected	2000	Not Detected
Cumene	200	Not Detected	980	Not Detected
1,1,2,2-Tetrachloroethane	200	Not Detected	1400	Not Detected
Propylbenzene	200	Not Detected	980	Not Detected
4-Ethyltoluene	200	Not Detected	980	Not Detected
1,3,5-Trimethylbenzene	200	Not Detected	980	Not Detected
1,2,4-Trimethylbenzene	200	Not Detected	980	Not Detected
1,3-Dichlorobenzene	200	600	1200	3600
1,4-Dichlorobenzene	200	6900	1200	42000
alpha-Chlorotoluene	200	Not Detected	1000	Not Detected
1,2-Dichlorobenzene	200	8100	1200	48000
1,2,4-Trichlorobenzene	790	Not Detected	5900	Not Detected
Hexachlorobutadiene	790	Not Detected	8500	Not Detected
Naphthalene	790	Not Detected	4200	Not Detected
1,1,1,2-Tetrachloroethane	790	Not Detected	5400	Not Detected
1,2,3-Trichloropropane	790	Not Detected	4800	Not Detected
Acetonitrile	2000	Not Detected	3300	Not Detected
Butylbenzene	790	Not Detected	4400	Not Detected
Dibromomethane	790	Not Detected	5600	Not Detected
Ethyl Acetate	790	Not Detected	2900	Not Detected
sec-Butylbenzene	790	Not Detected	4400	Not Detected
Vinyl Acetate	790	Not Detected	2800	Not Detected

Container Type: 6 Liter Summa Special (100% Certified)

Surrogates	%Recovery	Method Limits
Toluene-d8	91	70-130
1,2-Dichloroethane-d4	96	70-130
4-Bromofluorobenzene	108	70-130

Air Toxics LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: SV-3 Wiese

Lab ID#: 0612090-01A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	8121920	Date of Collection: 12/4/06
Dil. Factor:	397	Date of Analysis: 12/20/06 12:41 AM

Air Toxics LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: Lab Blank

Lab ID#: 0612090-02A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**8121910a**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 12/19/06 05:04 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Freon 12	0.50	Not Detected	2.5	Not Detected
Freon 114	0.50	Not Detected	3.5	Not Detected
Chloromethane	2.0	Not Detected	4.1	Not Detected
Vinyl Chloride	0.50	Not Detected	1.3	Not Detected
1,3-Butadiene	0.50	Not Detected	1.1	Not Detected
Bromomethane	0.50	Not Detected	1.9	Not Detected
Chloroethane	0.50	Not Detected	1.3	Not Detected
Freon 11	0.50	Not Detected	2.8	Not Detected
Ethanol	2.0	Not Detected	3.8	Not Detected
Freon 113	0.50	Not Detected	3.8	Not Detected
1,1-Dichloroethene	0.50	Not Detected	2.0	Not Detected
Acetone	2.0	Not Detected	4.8	Not Detected
2-Propanol	2.0	Not Detected	4.9	Not Detected
Carbon Disulfide	0.50	Not Detected	1.6	Not Detected
3-Chloropropene	2.0	Not Detected	6.3	Not Detected
Methylene Chloride	0.50	Not Detected	1.7	Not Detected
Methyl tert-butyl ether	0.50	Not Detected	1.8	Not Detected
trans-1,2-Dichloroethene	0.50	Not Detected	2.0	Not Detected
Hexane	0.50	Not Detected	1.8	Not Detected
1,1-Dichloroethane	0.50	Not Detected	2.0	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.50	Not Detected	1.5	Not Detected
cis-1,2-Dichloroethene	0.50	Not Detected	2.0	Not Detected
Tetrahydrofuran	0.50	Not Detected	1.5	Not Detected
Chloroform	0.50	Not Detected	2.4	Not Detected
1,1,1-Trichloroethane	0.50	Not Detected	2.7	Not Detected
Cyclohexane	0.50	Not Detected	1.7	Not Detected
Carbon Tetrachloride	0.50	Not Detected	3.1	Not Detected
2,2,4-Trimethylpentane	0.50	Not Detected	2.3	Not Detected
Benzene	0.50	Not Detected	1.6	Not Detected
1,2-Dichloroethane	0.50	Not Detected	2.0	Not Detected
Heptane	0.50	Not Detected	2.0	Not Detected
Trichloroethene	0.50	Not Detected	2.7	Not Detected
1,2-Dichloropropane	0.50	Not Detected	2.3	Not Detected
1,4-Dioxane	2.0	Not Detected	7.2	Not Detected
Bromodichloromethane	0.50	Not Detected	3.4	Not Detected
cis-1,3-Dichloropropene	0.50	Not Detected	2.3	Not Detected
4-Methyl-2-pentanone	0.50	Not Detected	2.0	Not Detected
Toluene	0.50	Not Detected	1.9	Not Detected
trans-1,3-Dichloropropene	0.50	Not Detected	2.3	Not Detected

Air Toxics LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: Lab Blank

Lab ID#: 0612090-02A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**8121910a**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 12/19/06 05:04 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
1,1,2-Trichloroethane	0.50	Not Detected	2.7	Not Detected
Tetrachloroethene	0.50	Not Detected	3.4	Not Detected
2-Hexanone	2.0	Not Detected	8.2	Not Detected
Dibromochloromethane	0.50	Not Detected	4.2	Not Detected
1,2-Dibromoethane (EDB)	0.50	Not Detected	3.8	Not Detected
Chlorobenzene	0.50	Not Detected	2.3	Not Detected
Ethyl Benzene	0.50	Not Detected	2.2	Not Detected
m,p-Xylene	0.50	Not Detected	2.2	Not Detected
o-Xylene	0.50	Not Detected	2.2	Not Detected
Styrene	0.50	Not Detected	2.1	Not Detected
Bromoform	0.50	Not Detected	5.2	Not Detected
Cumene	0.50	Not Detected	2.4	Not Detected
1,1,2,2-Tetrachloroethane	0.50	Not Detected	3.4	Not Detected
Propylbenzene	0.50	Not Detected	2.4	Not Detected
4-Ethyltoluene	0.50	Not Detected	2.4	Not Detected
1,3,5-Trimethylbenzene	0.50	Not Detected	2.4	Not Detected
1,2,4-Trimethylbenzene	0.50	Not Detected	2.4	Not Detected
1,3-Dichlorobenzene	0.50	Not Detected	3.0	Not Detected
1,4-Dichlorobenzene	0.50	Not Detected	3.0	Not Detected
alpha-Chlorotoluene	0.50	Not Detected	2.6	Not Detected
1,2-Dichlorobenzene	0.50	Not Detected	3.0	Not Detected
1,2,4-Trichlorobenzene	2.0	Not Detected	15	Not Detected
Hexachlorobutadiene	2.0	Not Detected	21	Not Detected
Naphthalene	2.0	Not Detected	10	Not Detected
1,1,1,2-Tetrachloroethane	2.0	Not Detected	14	Not Detected
1,2,3-Trichloropropane	2.0	Not Detected	12	Not Detected
Acetonitrile	5.0	Not Detected	8.4	Not Detected
Butylbenzene	2.0	Not Detected	11	Not Detected
Dibromomethane	2.0	Not Detected	14	Not Detected
Ethyl Acetate	2.0	Not Detected	7.2	Not Detected
sec-Butylbenzene	2.0	Not Detected	11	Not Detected
Vinyl Acetate	2.0	Not Detected	7.0	Not Detected

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	94	70-130
1,2-Dichloroethane-d4	89	70-130
4-Bromofluorobenzene	96	70-130

Air Toxics LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: Lab Blank

Lab ID#: 0612090-02A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	8121910a	Date of Collection: NA	
Dil. Factor:	1.00	Date of Analysis: 12/19/06 05:04 PM	

Air Toxics LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: CCV

Lab ID#: 0612090-03A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**8121905**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 12/19/06 02:11 PM**	

Compound	%Recovery
Freon 12	90
Freon 114	104
Chloromethane	113
Vinyl Chloride	104
1,3-Butadiene	104
Bromomethane	95
Chloroethane	102
Freon 11	92
Ethanol	109
Freon 113	100
1,1-Dichloroethene	95
Acetone	104
2-Propanol	103
Carbon Disulfide	95
3-Chloropropene	92
Methylene Chloride	100
Methyl tert-butyl ether	77
trans-1,2-Dichloroethene	92
Hexane	101
1,1-Dichloroethane	94
2-Butanone (Methyl Ethyl Ketone)	82
cis-1,2-Dichloroethene	90
Tetrahydrofuran	91
Chloroform	90
1,1,1-Trichloroethane	87
Cyclohexane	88
Carbon Tetrachloride	90
2,2,4-Trimethylpentane	91
Benzene	82
1,2-Dichloroethane	92
Heptane	87
Trichloroethene	90
1,2-Dichloropropane	86
1,4-Dioxane	84
Bromodichloromethane	88
cis-1,3-Dichloropropene	86
4-Methyl-2-pentanone	90
Toluene	89
trans-1,3-Dichloropropene	101

Air Toxics LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: CCV

Lab ID#: 0612090-03A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**8121905**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 12/19/06 02:11 PM**	

Compound	%Recovery
1,1,2-Trichloroethane	97
Tetrachloroethene	103
2-Hexanone	101
Dibromochloromethane	105
1,2-Dibromoethane (EDB)	104
Chlorobenzene	96
Ethyl Benzene	102
m,p-Xylene	98
o-Xylene	101
Styrene	102
Bromoform	108
Cumene	95
1,1,2,2-Tetrachloroethane	94
Propylbenzene	98
4-Ethyltoluene	102
1,3,5-Trimethylbenzene	110
1,2,4-Trimethylbenzene	98
1,3-Dichlorobenzene	111
1,4-Dichlorobenzene	86
alpha-Chlorotoluene	92
1,2-Dichlorobenzene	109
1,2,4-Trichlorobenzene	109
Hexachlorobutadiene	120
Naphthalene	94
1,1,1,2-Tetrachloroethane	95
1,2,3-Trichloropropane	91
Acetonitrile	81
Butylbenzene	93
Dibromomethane	89
Ethyl Acetate	88
sec-Butylbenzene	96
Vinyl Acetate	91

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	94	70-130
1,2-Dichloroethane-d4	92	70-130
4-Bromofluorobenzene	108	70-130

Air Toxics LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: CCV

Lab ID#: 0612090-03A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	8121905	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 12/19/06 02:11 PM

Air Toxics LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: LCS

Lab ID#: 0612090-04A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**8121903**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 12/19/06 12:09 PM**	

Compound	%Recovery
Freon 12	84
Freon 114	98
Chloromethane	108
Vinyl Chloride	97
1,3-Butadiene	100
Bromomethane	92
Chloroethane	97
Freon 11	89
Ethanol	105
Freon 113	97
1,1-Dichloroethene	92
Acetone	93
2-Propanol	97
Carbon Disulfide	92
3-Chloropropene	95
Methylene Chloride	96
Methyl tert-butyl ether	67
trans-1,2-Dichloroethene	90
Hexane	96
1,1-Dichloroethane	92
2-Butanone (Methyl Ethyl Ketone)	81
cis-1,2-Dichloroethene	91
Tetrahydrofuran	85
Chloroform	88
1,1,1-Trichloroethane	87
Cyclohexane	84
Carbon Tetrachloride	89
2,2,4-Trimethylpentane	88
Benzene	87
1,2-Dichloroethane	96
Heptane	83
Trichloroethene	98
1,2-Dichloropropane	88
1,4-Dioxane	85
Bromodichloromethane	87
cis-1,3-Dichloropropene	58 Q
4-Methyl-2-pentanone	88
Toluene	92
trans-1,3-Dichloropropene	94

Air Toxics LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: LCS

Lab ID#: 0612090-04A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**8121903**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 12/19/06 12:09 PM**	

Compound	%Recovery
1,1,2-Trichloroethane	90
Tetrachloroethene	97
2-Hexanone	83
Dibromochloromethane	92
1,2-Dibromoethane (EDB)	95
Chlorobenzene	90
Ethyl Benzene	100
m,p-Xylene	86
o-Xylene	83
Styrene	85
Bromoform	78
Cumene	84
1,1,2,2-Tetrachloroethane	90
Propylbenzene	90
4-Ethyltoluene	96
1,3,5-Trimethylbenzene	86
1,2,4-Trimethylbenzene	61 Q
1,3-Dichlorobenzene	108
1,4-Dichlorobenzene	104
alpha-Chlorotoluene	93
1,2-Dichlorobenzene	102
1,2,4-Trichlorobenzene	104
Hexachlorobutadiene	104
Naphthalene	88
1,1,1,2-Tetrachloroethane	Not Spiked
1,2,3-Trichloropropane	Not Spiked
Acetonitrile	Not Spiked
Butylbenzene	Not Spiked
Dibromomethane	Not Spiked
Ethyl Acetate	Not Spiked
sec-Butylbenzene	Not Spiked
Vinyl Acetate	84

Q = Exceeds Quality Control limits.

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	96	70-130
1,2-Dichloroethane-d4	93	70-130

Air Toxics LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: LCS

Lab ID#: 0612090-04A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**8121903**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 12/19/06 12:09 PM**	

Surrogates	%Recovery	Method Limits
4-Bromofluorobenzene	101	70-130

QA LEVEL II - ORGANIC DATA EVALUATION CHECKLIST

Company Name: Golder Associates
Project Name: Solutia Soil Vapor Sampling Event
Reviewer: J. White

Project Manager: M. Haddock
Project Number: 043-9670
Validation Date: 1/11/07

Laboratory: AirToxics
Analytical Method (type and no.): TO-15 SIM
Matrix: [X] Air [ ] Soil/Sed [ ] Water [ ] Waste [ ]
Sample Names: SV-4, Equipment Blank

SDG #: 0612240

NOTE: Please provide calculation in Comment areas or on the back (if on the back please indicate in comment areas).

Field Information	YES	NO	NA	COMMENTS
a) Sampling dates noted?	☑	☐	☐	
b) Sampling team indicated?	☑	☐	☐	
c) Sample location noted?	☑	☐	☐	
d) Sample depth indicated (~~Soils~~)? Air	☑	☐	☐	
e) Sample type indicated (grab/composite)?	☑	☐	☐	
f) Field QC noted?	☐	☐	☑	
g) Field parameters collected (note types)?	☑	☐	☐	PID
h) Field Calibration within control limits?	☑	☐	☐	
i) Notations of unacceptable field conditions/performances from field logs or field notes?	☐	☑	☐	
j) Does the laboratory narrative indicate deficiencies?	☐	☑	☐	

Note Deficiencies:

Chain-of-Custody (COC)	YES	NO	NA	COMMENTS
a) Was the COC properly completed?	☑	☐	☐	
b) Was the COC signed by both field and laboratory personnel?	☑	☐	☐	
c) Were samples received in good condition?	☑	☐	☐	

General (reference QAPP or Method)	YES	NO	NA	COMMENTS
a) Were hold times met for sample pretreatment?	☑	☐	☐	HT = 14D
b) Were hold times met for sample analysis?	☑	☐	☐	HT = 10D
c) Were the correct preservatives used?	☐	☐	☑	
d) Was the correct method used?	☑	☐	☐	
e) Were appropriate reporting limits achieved?	☑	☐	☐	
f) Were any sample dilutions noted?	☐	☑	☐	
g) Were any matrix problems noted?	☐	☑	☐	

QA LEVEL II - ORGANIC DATA EVALUATION CHECKLIST

Blanks	***YES***	***NO***	***NA***	***COMMENTS***
a) Were analytes detected in the method blank(s)?	☐	☑	☐	
b) Were analytes detected in the field blank(s)?	☐	☐	☑	
c) Were analytes detected in the equipment blank(s)?	☐	☑	☐	
d) Were analytes detected in the trip blank(s)?	☐	☐	☑	

Laboratory Control Sample (LCS)	***YES***	***NO***	***NA***	***COMMENTS***
a) Was a LCS analyzed once per SDG?	☑	☐	☐	
b) Were the proper compounds included in the LCS?	☑	☐	☐	
c) Was the LCS accuracy criteria met?	☑	☐	☐	

Duplicates	***YES***	***NO***	***NA***	***COMMENTS***
a) Were field duplicates collected (note original and duplicate sample names)?	☐	☑	☐	
b) Were field dup. precision criteria met (note RPD)?	☐	☐	☑	
c) Were lab duplicates analyzed (note original and duplicate samples)?	☐	☑	☐	
d) Were lab dup. precision criteria met (note RPD)?	☐	☐	☑	

Blind Standards	***YES***	***NO***	***NA***	***COMMENTS***
a) Was a blind standard used (indicate name, compounds included and concentrations)?	☐	☐	☑	
b) Was the %D within control limits?	☐	☐	☑	

Matrix Spike/Matrix Spike Duplicate (MS/MSD)	***YES***	***NO***	***NA***	***COMMENTS***
a) Was MS accuracy criteria met?	☐	☐	☑	
Recovery could not be calculated since sample contained high concentration of analyte?	☐	☐	☑	
b) Was MSD accuracy criteria met?	☐	☐	☑	
Recovery could not be calculated since sample contained high concentration of analyte?	☐	☐	☑	
c) Were MS/MSD precision criteria met?	☐	☐	☑	

Surrogate Spikes	***YES***	***NO***	***NA***	***COMMENTS***
a) Were surrogate recoveries within control limits?	☑	☐	☐	
b) Were surrogate recoveries not calculated due to dilutions?	☐	☐	☑	

Comments/Notes:

QA LEVEL II - ORGANIC DATA EVALUATION CHECKLIST

Data Qualification:

Sample Name	Constituent(s)	Result	Qualifier	Reason
No Qualifiers				

Signature: [signature]   Date: 1/11/07

Air Toxics LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

WORK ORDER #: 0612240

Work Order Summary

CLIENT:	Mr. Mark Haddock Golder Associates, Inc. 820 South Main Street Suite 100 St. Charles, MO 63301	**BILL TO:**	Mr. Mark Haddock Golder Associates, Inc. 820 South Main Street Suite 100 St. Charles, MO 63301
PHONE:	(636)-724-9191	**P.O. #**	043-9670
FAX:	(636-724-9323	**PROJECT #**	043-9670 Solutia Soil Vapor Sampling Event
DATE RECEIVED:	12/12/2006	**CONTACT:**	Brandon Dunmore
DATE COMPLETED:	12/29/2006		

FRACTION #	NAME	TEST	RECEIPT VAC./PRES.
01A	SV-4 cerro	Modified TO-15 SIM	3.0 "Hg
02A	Equipment Blank	Modified TO-15 SIM	3.5 "Hg
03A	Lab Blank	Modified TO-15 SIM	NA
04A	CCV	Modified TO-15 SIM	NA
05A	LCS	Modified TO-15 SIM	NA

CERTIFIED BY: _____ DATE: 12/29/06

Laboratory Director

Certfication numbers: CA NELAP - 02110CA, LA NELAP/LELAP- AI 30763, NJ NELAP - CA004
NY NELAP - 11291, UT NELAP - 9166389892
Name of Accrediting Agency: NELAP/Florida Department of Health, Scope of Application: Clean Air Act,
Accreditation number: E87680, Effective date: 07/01/06, Expiration date: 06/30/07
Air Toxics Ltd. certifies that the test results contained in this report meet all requirements of the NELAC standards

180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 95630
(916) 985-1000 . (800) 985-5955 . FAX (916) 985-1020

LABORATORY NARRATIVE
Modified TO-15 SIM
Golder Associates, Inc.
Workorder# 0612240

Two 6 Liter Summa Special (100% Certified) samples were received on December 12, 2006. The laboratory performed analysis via modified EPA Method TO-15 using GC/MS in the SIM acquisition mode. The method involves concentrating up to 0.5 liters of air. The concentrated aliquot is then flash vaporized and swept through a water management system to remove water vapor. Following dehumidification, the sample passes directly into the GC/MS for analysis.

Method modifications taken to run these samples are summarized in the below table. Specific project requirements may over-ride the ATL modifications.

Requirement	*TO-15*	*ATL Modifications*
ICAL %RSD acceptance criteria	</=30% RSD with 2 compounds allowed out to < 40% RSD	Project specific; default criteria is </=30% RSD with 10% of compounds allowed out to < 40% RSD
Daily Calibration	+- 30% Difference	Project specific; default criteria is </= 30% Difference with 10% of compounds allowed out up to </=40% ; flag and narrate outliers
Blank and standards	Zero air	Nitrogen
Method Detection Limit	Follow 40CFR Pt.136 App B	The MDL met all relevant requirements in Method TO-15 (statistical MDL less than the LOQ). The concentration of the spiked replicate may have exceeded 10X the calculated MDL in some cases

Receiving Notes

The Chain of Custody (COC) information for sample Equipment Blank did not match the entry on the sample tag with regard to sample identification. The discrepancy was noted in the Sample Receipt Confirmation email/fax and the information on the COC was used to process and report the sample.

Analytical Notes

There were no analytical discrepancies.

Definition of Data Qualifying Flags

Eight qualifiers may have been used on the data analysis sheets and indicates as follows:

B - Compound present in laboratory blank greater than reporting limit (background subtraction not performed).

J - Estimated value.

E - Exceeds instrument calibration range.

S - Saturated peak.

Q - Exceeds quality control limits.

U - Compound analyzed for but not detected above the reporting limit.

UJ- Non-detected compound associated with low bias in the CCV
N - The identification is based on presumptive evidence.

File extensions may have been used on the data analysis sheets and indicates as follows:
a-File was requantified
b-File was quantified by a second column and detector
r1-File was requantified for the purpose of reissue

Summary of Detected Compounds
MODIFIED EPA METHOD TO-15 GC/MS SIM

Client Sample ID: SV-4 cerro

Lab ID#: 0612240-01A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Trichloroethene	0 030	0 54	0 16	2 9

Client Sample ID: Equipment Blank

Lab ID#: 0612240-02A

No Detections Were Found

Air Toxics LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: SV-4 cerro

Lab ID#: 0612240-01A

MODIFIED EPA METHOD TO-15 GC/MS SIM

File Name:	**6122016**	**Date of Collection: 12/11/06**	
Dil. Factor:	**1.49**	**Date of Analysis: 12/20/06 06:59 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Trichloroethene	0.030	0.54	0.16	2.9
1,2-Dichloroethane	0.030	Not Detected	0.12	Not Detected
1,2-Dibromoethane (EDB)	0.030	Not Detected	0.23	Not Detected
1,1,2,2-Tetrachloroethane	0.030	Not Detected	0.20	Not Detected

Container Type: 6 Liter Summa Special (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	101	70-130
Toluene-d8	101	70-130
4-Bromofluorobenzene	103	70-130

Air Toxics LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: Equipment Blank

Lab ID#: 0612240-02A

MODIFIED EPA METHOD TO-15 GC/MS SIM

File Name:	**6122017**	**Date of Collection:**	**12/11/06**
Dil. Factor:	**1.52**	**Date of Analysis:**	**12/20/06 07:53 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Trichloroethene	0.030	Not Detected	0.16	Not Detected
1,2-Dichloroethane	0.030	Not Detected	0.12	Not Detected
1,2-Dibromoethane (EDB)	0.030	Not Detected	0.23	Not Detected
1,1,2,2-Tetrachloroethane	0.030	Not Detected	0.21	Not Detected

Container Type: 6 Liter Summa Special (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	101	70-130
Toluene-d8	101	70-130
4-Bromofluorobenzene	105	70-130

Air Toxics LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: Lab Blank

Lab ID#: 0612240-03A

MODIFIED EPA METHOD TO-15 GC/MS SIM

File Name:	**6122006**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 12/20/06 10:50 AM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Trichloroethene	0.020	Not Detected	0.11	Not Detected
1,2-Dichloroethane	0.020	Not Detected	0.081	Not Detected
1,2-Dibromoethane (EDB)	0.020	Not Detected	0.15	Not Detected
1,1,2,2-Tetrachloroethane	0.020	Not Detected	0.14	Not Detected

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	100	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	112	70-130

Air Toxics LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: CCV

Lab ID#: 0612240-04A

MODIFIED EPA METHOD TO-15 GC/MS SIM

File Name:	**6122003**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 12/20/06 08:43 AM**	

Compound	%Recovery
Trichloroethene	86
1,2-Dichloroethane	84
1,2-Dibromoethane (EDB)	90
1,1,2,2-Tetrachloroethane	74

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	90	70-130
Toluene-d8	97	70-130
4-Bromofluorobenzene	96	70-130

Air Toxics LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: LCS

Lab ID#: 0612240-05A

MODIFIED EPA METHOD TO-15 GC/MS SIM

File Name:	**6122004**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 12/20/06 09:26 AM**	

Compound	%Recovery
Trichloroethene	90
1,2-Dichloroethane	93
1,2-Dibromoethane (EDB)	100
1,1,2,2-Tetrachloroethane	98

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	94	70-130
Toluene-d8	98	70-130
4-Bromofluorobenzene	103	70-130

QA LEVEL II - ORGANIC DATA EVALUATION CHECKLIST

Company Name: Golder Associates
Project Manager: M. Haddock
Project Name: Solvtia Soil Vapor Sampling Event
Project Number: 043-9670
Reviewer: J. White
Validation Date: 1/11/07

Laboratory: Air Toxics LTD.
SDG #: 0612240B
Analytical Method (type and no.): TO-15 (modified) Full Scan
Matrix: [X] Air [ ] Soil/Sed [ ] Water [ ] Waste [ ]
Sample Names: SV-4, Equipment Blank

NOTE: Please provide calculation in Comment areas or on the back (if on the back please indicate in comment areas).

Field Information	YES	NO	NA	COMMENTS
a) Sampling dates noted?	☑	☐	☐	
b) Sampling team indicated?	☑	☐	☐	
c) Sample location noted?	☑	☐	☐	
d) Sample depth indicated (~~Soils~~)? Air	☑	☐	☐	
e) Sample type indicated (grab/composite)?	☑	☐	☐	
f) Field QC noted?	☐	☐	☑	
g) Field parameters collected (note types)?	☑	☐	☐	PID
h) Field Calibration within control limits?	☑	☐	☐	
i) Notations of unacceptable field conditions/performances from field logs or field notes?	☐	☑	☐	
j) Does the laboratory narrative indicate deficiencies?	☐	☑	☐	

Note Deficiencies:

Chain-of-Custody (COC)	YES	NO	NA	COMMENTS
a) Was the COC properly completed?	☑	☐	☐	
b) Was the COC signed by both field and laboratory personnel?	☑	☐	☐	
c) Were samples received in good condition?	☑	☐	☐	

General (reference QAPP or Method)	YES	NO	NA	COMMENTS
a) Were hold times met for sample pretreatment?	☑	☐	☐	HT = 14D
b) Were hold times met for sample analysis?	☑	☐	☐	HT = 16D
c) Were the correct preservatives used?	☐	☐	☑	
d) Was the correct method used?	☑	☐	☐	
e) Were appropriate reporting limits achieved?	☑	☐	☐	
f) Were any sample dilutions noted?	☐	☑	☐	
g) Were any matrix problems noted?	☐	☑	☐	

QA LEVEL II - ORGANIC DATA EVALUATION CHECKLIST

Blanks	YES	NO	NA	COMMENTS
a) Were analytes detected in the method blank(s)?	☐	☑	☐	
b) Were analytes detected in the field blank(s)?	☐	☐	☑	
c) Were analytes detected in the equipment blank(s)?	☑	☐	☐	
d) Were analytes detected in the trip blank(s)?	☐	☐	☑	

Laboratory Control Sample (LCS)	YES	NO	NA	COMMENTS
a) Was a LCS analyzed once per SDG?	☑	☐	☐	
b) Were the proper compounds included in the LCS?	☑	☐	☐	
c) Was the LCS accuracy criteria met?	☐	☑	☐	Chloroethane, Naphthalene outside control limits

Duplicates	YES	NO	NA	COMMENTS
a) Were field duplicates collected (note original and duplicate sample names)?	☐	☑	☐	
b) Were field dup. precision criteria met (note RPD)?	☐	☐	☑	
c) Were lab duplicates analyzed (note original and duplicate samples)?	☐	☑	☐	
d) Were lab dup. precision criteria met (note RPD)?	☐	☐	☑	

Blind Standards	YES	NO	NA	COMMENTS
a) Was a blind standard used (indicate name, compounds included and concentrations)?	☐	☐	☑	
b) Was the %D within control limits?	☐	☐	☑	

Matrix Spike/Matrix Spike Duplicate (MS/MSD)	YES	NO	NA	COMMENTS
a) Was MS accuracy criteria met?	☐	☐	☑	
Recovery could not be calculated since sample contained high concentration of analyte?	☐	☐	☑	
b) Was MSD accuracy criteria met?	☐	☐	☑	
Recovery could not be calculated since sample contained high concentration of analyte?	☐	☐	☑	
c) Were MS/MSD precision criteria met?	☐	☐	☑	

Surrogate Spikes	YES	NO	NA	COMMENTS
a) Were surrogate recoveries within control limits?	☑	☐	☐	
b) Were surrogate recoveries not calculated due to dilutions?	☐	☐	☑	

Comments/Notes: See qualifiers on next page

QA LEVEL II - ORGANIC DATA EVALUATION CHECKLIST

Data Qualification:

Sample Name	Constituent(s)	Result (PPbV)	Qualifier	Reason
SV-4	Freon 11	0.28	J	Detection in Equip. Blank
	Acetone	15		
	2-Butanone	2.8		
	4-Methyl-2-Pentanone	0.61		
	m,p-Xylene	2.0		
	o-Xylene	0.83		
	4-Ethyltoluene	0.49		
	1,2,4-Trimethylbenzene	0.85		
	Chloroethane	0.28		LCS outside control limits
	Naphthalene	21		

Signature: _____ Date: 1/11/07

Air Toxics LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

WORK ORDER #: 0612240B

Work Order Summary

CLIENT:	Mr. Mark Haddock Golder Associates, Inc. 820 South Main Street Suite 100 St. Charles, MO 63301	**BILL TO:**	Mr. Mark Haddock Golder Associates, Inc. 820 South Main Street Suite 100 St. Charles, MO 63301
PHONE:	(636)-724-9191	**P.O. #**	043-9670
FAX:	(636-724-9323	**PROJECT #**	043-9670 Solutia Soil Vapor Sampling Event
DATE RECEIVED:	12/12/2006	**CONTACT:**	Brandon Dunmore
DATE COMPLETED:	12/29/2006		

FRACTION #	NAME	TEST	RECEIPT VAC./PRES.
01A	SV-4 cerro	Modified TO-15	3.0 "Hg
02A	Equipment Blank	Modified TO-15	3.5 "Hg
03A	Lab Blank	Modified TO-15	NA
04A	CCV	Modified TO-15	NA
05A	LCS	Modified TO-15	NA

CERTIFIED BY: _____ DATE: 12/29/06

Laboratory Director

Certfication numbers: CA NELAP - 02110CA, LA NELAP/LELAP- AI 30763, NJ NELAP - CA004
NY NELAP - 11291, UT NELAP - 9166389892
Name of Accrediting Agency: NELAP/Florida Department of Health, Scope of Application: Clean Air Act,
Accreditation number: E87680, Effective date: 07/01/06, Expiration date: 06/30/07
Air Toxics Ltd certifies that the test results contained in this report meet all requirements of the NELAC standards

180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 95630
(916) 985-1000 (800) 985-5955 FAX (916) 985-1020

LABORATORY NARRATIVE
Modified TO-15
Golder Associates, Inc.
Workorder# 0612240B

Two 6 Liter Summa Special (100% Certified) samples were received on December 12, 2006. The laboratory performed analysis via modified EPA Method TO-15 using GC/MS in the full scan mode. The method involves concentrating up to 1.0 liter of air. The concentrated aliquot is then flash vaporized and swept through a water management system to remove water vapor. Following dehumidification, the sample passes directly into the GC/MS for analysis.

Method modifications taken to run these samples are summarized in the below table. Specific project requirements may over-ride the ATL modifications.

Requirement	*TO-15*	*ATL Modifications*
ICAL %RSD acceptance criteria	+- 30% RSD with 2 compounds allowed out to < 40% RSD	30% RSD with 4 compounds allowed out to < 40% RSD
Daily Calibration	+- 30% Difference	</= 30% Difference with four allowed out up to </=40% ; flag and narrate outliers
Blank and standards	Zero air	Nitrogen
Method Detection Limit	Follow 40CFR Pt.136 App. B	The MDL met all relevant requirements in Method TO-15 (statistical MDL less than the LOQ). The concentration of the spiked replicate may have exceeded 10X the calculated MDL in some cases
Sample collection media	Summa canister	ATL recommends use of summa canisters to insure data defensibility, but will report results from Tedlar bags at client request

Receiving Notes

The Chain of Custody (COC) information for sample Equipment Blank did not match the entry on the sample tag with regard to sample identification. The discrepancy was noted in the Sample Receipt Confirmation email/fax and the information on the COC was used to process and report the sample.

Analytical Notes

The reported CCV for each daily batch may be derived from more than one analytical file due to the client's request for non-standard compounds.

Non-standard compounds may have different acceptance criteria than the standard TO-14A/TO-15 compound list as per contract or verbal agreement.

The reported LCS for each daily batch has been derived from more than one analytical file.

All Quality Control Limit failures and affected sample results are noted by flags. Each flag is defined at the

bottom of this Case Narrative and on each Sample Result Summary page. Target compound non-detects in the samples that are associated with high bias in QC analyses have not been flagged.

Definition of Data Qualifying Flags

Eight qualifiers may have been used on the data analysis sheets and indicates as follows:

B - Compound present in laboratory blank greater than reporting limit (background subtraction not performed).

J - Estimated value.

E - Exceeds instrument calibration range.

S - Saturated peak.

Q - Exceeds quality control limits.

U - Compound analyzed for but not detected above the reporting limit.

UJ- Non-detected compound associated with low bias in the CCV

N - The identification is based on presumptive evidence.

File extensions may have been used on the data analysis sheets and indicates as follows:

a-File was requantified

b-File was quantified by a second column and detector

r1-File was requantified for the purpose of reissue

Air Toxics LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Summary of Detected Compounds
MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

Client Sample ID: SV-4 cerro

Lab ID#: 0612240B-01A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Freon 12	0.15	0.49	0.74	2.4
Chloromethane	0.15	0.20	0.31	0.42
1,3-Butadiene	0.15	2.5	0.33	5.6
Chloroethane	0.15	0.28 J	0.39	0.73
Freon 11	0.15	0.28 J	0.84	1.6
Freon 113	0.15	0.20	1.1	1.5
Acetone	0.74	15 J	1.8	36
Carbon Disulfide	0.74	35	2.3	110
Hexane	0.15	25	0.52	87
1,1-Dichloroethane	0.15	1.7	0.60	7.0
2-Butanone (Methyl Ethyl Ketone)	0.15	2.8 J	0.44	8.3
1,1,1-Trichloroethane	0.15	3.6	0.81	20
Cyclohexane	0.15	16	0.51	56
Benzene	0.15	8.2	0.48	26
Heptane	0.15	7.1	0.61	29
4-Methyl-2-pentanone	0.15	0.61 J	0.61	2.5
Toluene	0.15	8.7	0.56	33
Tetrachloroethene	0.15	0.28	1.0	1.9
Ethyl Benzene	0.15	1.3	0.65	5.7
m,p-Xylene	0.15	2.0 J	0.65	8.8
o-Xylene	0.15	0.83 J	0.65	3.6
Styrene	0.15	0.22	0.63	0.92
Propylbenzene	0.15	0.14 J	0.73	0.72 J
4-Ethyltoluene	0.15	0.49 J	0.73	2.4
1,3,5-Trimethylbenzene	0.15	0.45	0.73	2.2
1,2,4-Trimethylbenzene	0.15	0.85 J	0.73	4.2
Naphthalene	0.74	21 J	3.9	110

Client Sample ID: Equipment Blank

Lab ID#: 0612240B-02A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Freon 11	0.15	0.17	0.85	0.95
Ethanol	0.76	5.4	1.4	10
Acetone	0.76	16	1.8	37
2-Propanol	0.76	7.5	1.9	18
Carbon Disulfide	0.76	2.1	2.4	6.4

Summary of Detected Compounds
MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

Client Sample ID: Equipment Blank

Lab ID#: 0612240B-02A

2-Butanone (Methyl Ethyl Ketone)	0.15	2.2	0.45	6.5
Benzene	0.15	0.43	0.48	1.4
4-Methyl-2-pentanone	0.15	0.16	0.62	0.68
Toluene	0.15	0.33	0.57	1.3
Ethyl Benzene	0.15	0.14 J	0.66	0.63 J
m,p-Xylene	0.15	0.48	0.66	2.1
o-Xylene	0.15	0.17	0.66	0.76
4-Ethyltoluene	0.15	0.17	0.75	0.85
1,2,4-Trimethylbenzene	0.15	0.26	0.75	1.3

Air Toxics LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: SV-4 cerro

Lab ID#: 0612240B-01A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**7122115**	**Date of Collection:**	**12/11/06**
Dil. Factor:	**1.49**	**Date of Analysis:**	**12/22/06 12:29 AM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Freon 12	0.15	0.49	0.74	2.4
Freon 114	0.15	Not Detected	1.0	Not Detected
Chloromethane	0.15	0.20	0.31	0.42
Vinyl Chloride	0.15	Not Detected	0.38	Not Detected
1,3-Butadiene	0.15	2.5	0.33	5.6
Bromomethane	0.15	Not Detected	0.58	Not Detected
Chloroethane	0.15	0.28	0.39	0.73
Freon 11	0.15	0.28	0.84	1.6
Ethanol	0.74	Not Detected	1.4	Not Detected
Freon 113	0.15	0.20	1.1	1.5
1,1-Dichloroethene	0.15	Not Detected	0.59	Not Detected
Acetone	0.74	15	1.8	36
2-Propanol	0.74	Not Detected	1.8	Not Detected
Carbon Disulfide	0.74	35	2.3	110
Methylene Chloride	0.30	Not Detected	1.0	Not Detected
Methyl tert-butyl ether	0.15	Not Detected U J	0.54	Not Detected U J
trans-1,2-Dichloroethene	0.15	Not Detected	0.59	Not Detected
Hexane	0.15	25	0.52	87
1,1-Dichloroethane	0.15	1.7	0.60	7.0
2-Butanone (Methyl Ethyl Ketone)	0.15	2.8	0.44	8.3
cis-1,2-Dichloroethene	0.15	Not Detected	0.59	Not Detected
Tetrahydrofuran	0.74	Not Detected	2.2	Not Detected
Chloroform	0.15	Not Detected	0.73	Not Detected
1,1,1-Trichloroethane	0.15	3.6	0.81	20
Cyclohexane	0.15	16	0.51	56
Carbon Tetrachloride	0.15	Not Detected	0.94	Not Detected
Benzene	0.15	8.2	0.48	26
Heptane	0.15	7.1	0.61	29
1,2-Dichloropropane	0.15	Not Detected	0.69	Not Detected
1,4-Dioxane	0.15	Not Detected	0.54	Not Detected
Bromodichloromethane	0.15	Not Detected	1.0	Not Detected
cis-1,3-Dichloropropene	0.15	Not Detected	0.68	Not Detected
4-Methyl-2-pentanone	0.15	0.61	0.61	2.5
Toluene	0.15	8.7	0.56	33
trans-1,3-Dichloropropene	0.15	Not Detected	0.68	Not Detected
1,1,2-Trichloroethane	0.15	Not Detected	0.81	Not Detected
Tetrachloroethene	0.15	0.28	1.0	1.9
2-Hexanone	0.74	Not Detected	3.0	Not Detected
Dibromochloromethane	0.15	Not Detected	1.3	Not Detected

Air Toxics LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: SV-4 cerro

Lab ID#: 0612240B-01A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**7122115**	**Date of Collection:**	**12/11/06**
Dil. Factor:	**1.49**	**Date of Analysis:**	**12/22/06 12:29 AM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Chlorobenzene	0.15	Not Detected	0.68	Not Detected
Ethyl Benzene	0.15	1.3	0.65	5.7
m,p-Xylene	0.15	2.0	0.65	8.8
o-Xylene	0.15	0.83	0.65	3.6
Styrene	0.15	0.22	0.63	0.92
Bromoform	0.15	Not Detected	1.5	Not Detected
Cumene	0.15	Not Detected	0.73	Not Detected
Propylbenzene	0.15	0.14 J	0.73	0.72 J
4-Ethyltoluene	0.15	0.49	0.73	2.4
1,3,5-Trimethylbenzene	0.15	0.45	0.73	2.2
1,2,4-Trimethylbenzene	0.15	0.85	0.73	4.2
1,3-Dichlorobenzene	0.15	Not Detected	0.90	Not Detected
1,4-Dichlorobenzene	0.15	Not Detected	0.90	Not Detected
alpha-Chlorotoluene	0.15	Not Detected	0.77	Not Detected
1,2-Dichlorobenzene	0.15	Not Detected	0.90	Not Detected
1,2,4-Trichlorobenzene	0.74	Not Detected	5.5	Not Detected
Hexachlorobutadiene	0.74	Not Detected	7.9	Not Detected
Naphthalene	0.74	21	3.9	110
1,1,1,2-Tetrachloroethane	0.74	Not Detected	5.1	Not Detected
1,2,3-Trichloropropane	0.74	Not Detected	4.5	Not Detected
Acetonitrile	0.74	Not Detected	1.2	Not Detected
Butylbenzene	0.74	Not Detected	4.1	Not Detected
Dibromomethane	0.74	Not Detected	5.3	Not Detected
Ethyl Acetate	0.74	Not Detected	2.7	Not Detected
sec-Butylbenzene	0.74	Not Detected	4.1	Not Detected
Vinyl Acetate	3.0	Not Detected	10	Not Detected

UJ = Non-detected compound associated with low bias in the CCV

J = Estimated value

Container Type: 6 Liter Summa Special (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	116	70-130
Toluene-d8	99	70-130
4-Bromofluorobenzene	103	70-130

Air Toxics LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: Equipment Blank

Lab ID#: 0612240B-02A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**7122116**	**Date of Collection:**	**12/11/06**
Dil. Factor:	**1.52**	**Date of Analysis:**	**12/22/06 01:55 AM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Freon 12	0.15	Not Detected	0.75	Not Detected
Freon 114	0.15	Not Detected	1.1	Not Detected
Chloromethane	0.15	Not Detected	0.31	Not Detected
Vinyl Chloride	0.15	Not Detected	0.39	Not Detected
1,3-Butadiene	0.15	Not Detected	0.34	Not Detected
Bromomethane	0.15	Not Detected	0.59	Not Detected
Chloroethane	0.15	Not Detected	0.40	Not Detected
Freon 11	0.15	0.17	0.85	0.95
Ethanol	0.76	5.4	1.4	10
Freon 113	0.15	Not Detected	1.2	Not Detected
1,1-Dichloroethene	0.15	Not Detected	0.60	Not Detected
Acetone	0.76	16	1.8	37
2-Propanol	0.76	7.5	1.9	18
Carbon Disulfide	0.76	2.1	2.4	6.4
Methylene Chloride	0.30	Not Detected	1.0	Not Detected
Methyl tert-butyl ether	0.15	Not Detected U J	0.55	Not Detected U J
trans-1,2-Dichloroethene	0.15	Not Detected	0.60	Not Detected
Hexane	0.15	Not Detected	0.54	Not Detected
1,1-Dichloroethane	0.15	Not Detected	0.62	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.15	2.2	0.45	6.5
cis-1,2-Dichloroethene	0.15	Not Detected	0.60	Not Detected
Tetrahydrofuran	0.76	Not Detected	2.2	Not Detected
Chloroform	0.15	Not Detected	0.74	Not Detected
1,1,1-Trichloroethane	0.15	Not Detected	0.83	Not Detected
Cyclohexane	0.15	Not Detected	0.52	Not Detected
Carbon Tetrachloride	0.15	Not Detected	0.96	Not Detected
Benzene	0.15	0.43	0.48	1.4
Heptane	0.15	Not Detected	0.62	Not Detected
1,2-Dichloropropane	0.15	Not Detected	0.70	Not Detected
1,4-Dioxane	0.15	Not Detected	0.55	Not Detected
Bromodichloromethane	0.15	Not Detected	1.0	Not Detected
cis-1,3-Dichloropropene	0.15	Not Detected	0.69	Not Detected
4-Methyl-2-pentanone	0.15	0.16	0.62	0.68
Toluene	0.15	0.33	0.57	1.3
trans-1,3-Dichloropropene	0.15	Not Detected	0.69	Not Detected
1,1,2-Trichloroethane	0.15	Not Detected	0.83	Not Detected
Tetrachloroethene	0.15	Not Detected	1.0	Not Detected
2-Hexanone	0.76	Not Detected	3.1	Not Detected
Dibromochloromethane	0.15	Not Detected	1.3	Not Detected

Air Toxics LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: Equipment Blank

Lab ID#: 0612240B-02A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**7122116**	**Date of Collection:**	**12/11/06**
Dil. Factor:	**1.52**	**Date of Analysis:**	**12/22/06 01:55 AM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Chlorobenzene	0.15	Not Detected	0.70	Not Detected
Ethyl Benzene	0.15	0.14 J	0.66	0.63 J
m,p-Xylene	0.15	0.48	0.66	2.1
o-Xylene	0.15	0.17	0.66	0.76
Styrene	0.15	Not Detected	0.65	Not Detected
Bromoform	0.15	Not Detected	1.6	Not Detected
Cumene	0.15	Not Detected	0.75	Not Detected
Propylbenzene	0.15	Not Detected	0.75	Not Detected
4-Ethyltoluene	0.15	0.17	0.75	0.85
1,3,5-Trimethylbenzene	0.15	Not Detected	0.75	Not Detected
1,2,4-Trimethylbenzene	0.15	0.26	0.75	1.3
1,3-Dichlorobenzene	0.15	Not Detected	0.91	Not Detected
1,4-Dichlorobenzene	0.15	Not Detected	0.91	Not Detected
alpha-Chlorotoluene	0.15	Not Detected	0.79	Not Detected
1,2-Dichlorobenzene	0.15	Not Detected	0.91	Not Detected
1,2,4-Trichlorobenzene	0.76	Not Detected	5.6	Not Detected
Hexachlorobutadiene	0.76	Not Detected	8.1	Not Detected
Naphthalene	0.76	Not Detected	4.0	Not Detected
1,1,1,2-Tetrachloroethane	0.76	Not Detected	5.2	Not Detected
1,2,3-Trichloropropane	0.76	Not Detected	4.6	Not Detected
Acetonitrile	0.76	Not Detected	1.3	Not Detected
Butylbenzene	0.76	Not Detected	4.2	Not Detected
Dibromomethane	0.76	Not Detected	5.4	Not Detected
Ethyl Acetate	0.76	Not Detected	2.7	Not Detected
sec-Butylbenzene	0.76	Not Detected	4.2	Not Detected
Vinyl Acetate	3.0	Not Detected	11	Not Detected

UJ = Non-detected compound associated with low bias in the CCV

J = Estimated value

Container Type: 6 Liter Summa Special (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	110	70-130
Toluene-d8	99	70-130
4-Bromofluorobenzene	102	70-130

Air Toxics LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: Lab Blank

Lab ID#: 0612240B-03A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**7122113**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 12/21/06 09:38 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Freon 12	0.10	Not Detected	0.49	Not Detected
Freon 114	0.10	Not Detected	0.70	Not Detected
Chloromethane	0.10	Not Detected	0.21	Not Detected
Vinyl Chloride	0.10	Not Detected	0.26	Not Detected
1,3-Butadiene	0.10	Not Detected	0.22	Not Detected
Bromomethane	0.10	Not Detected	0.39	Not Detected
Chloroethane	0.10	Not Detected	0.26	Not Detected
Freon 11	0.10	Not Detected	0.56	Not Detected
Ethanol	0.50	Not Detected	0.94	Not Detected
Freon 113	0.10	Not Detected	0.77	Not Detected
1,1-Dichloroethene	0.10	Not Detected	0.40	Not Detected
Acetone	0.50	Not Detected	1.2	Not Detected
2-Propanol	0.50	Not Detected	1.2	Not Detected
Carbon Disulfide	0.50	Not Detected	1.6	Not Detected
Methylene Chloride	0.20	Not Detected	0.69	Not Detected
Methyl tert-butyl ether	0.10	Not Detected	0.36	Not Detected
trans-1,2-Dichloroethene	0.10	Not Detected	0.40	Not Detected
Hexane	0.10	Not Detected	0.35	Not Detected
1,1-Dichloroethane	0.10	Not Detected	0.40	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.10	Not Detected	0.29	Not Detected
cis-1,2-Dichloroethene	0.10	Not Detected	0.40	Not Detected
Tetrahydrofuran	0.50	Not Detected	1.5	Not Detected
Chloroform	0.10	Not Detected	0.49	Not Detected
1,1,1-Trichloroethane	0.10	Not Detected	0.54	Not Detected
Cyclohexane	0.10	Not Detected	0.34	Not Detected
Carbon Tetrachloride	0.10	Not Detected	0.63	Not Detected
Benzene	0.10	Not Detected	0.32	Not Detected
Heptane	0.10	Not Detected	0.41	Not Detected
1,2-Dichloropropane	0.10	Not Detected	0.46	Not Detected
1,4-Dioxane	0.10	Not Detected	0.36	Not Detected
Bromodichloromethane	0.10	Not Detected	0.67	Not Detected
cis-1,3-Dichloropropene	0.10	Not Detected	0.45	Not Detected
4-Methyl-2-pentanone	0.10	Not Detected	0.41	Not Detected
Toluene	0.10	Not Detected	0.38	Not Detected
trans-1,3-Dichloropropene	0.10	Not Detected	0.45	Not Detected
1,1,2-Trichloroethane	0.10	Not Detected	0.54	Not Detected
Tetrachloroethene	0.10	Not Detected	0.68	Not Detected
2-Hexanone	0.50	Not Detected	2.0	Not Detected
Dibromochloromethane	0.10	Not Detected	0.85	Not Detected

Air Toxics LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: Lab Blank

Lab ID#: 0612240B-03A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**7122113**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 12/21/06 09:38 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Chlorobenzene	0.10	Not Detected	0.46	Not Detected
Ethyl Benzene	0.10	Not Detected	0.43	Not Detected
m,p-Xylene	0.10	Not Detected	0.43	Not Detected
o-Xylene	0.10	Not Detected	0.43	Not Detected
Styrene	0.10	Not Detected	0.42	Not Detected
Bromoform	0.10	Not Detected	1.0	Not Detected
Cumene	0.10	Not Detected	0.49	Not Detected
Propylbenzene	0.10	Not Detected	0.49	Not Detected
4-Ethyltoluene	0.10	Not Detected	0.49	Not Detected
1,3,5-Trimethylbenzene	0.10	Not Detected	0.49	Not Detected
1,2,4-Trimethylbenzene	0.10	Not Detected	0.49	Not Detected
1,3-Dichlorobenzene	0.10	Not Detected	0.60	Not Detected
1,4-Dichlorobenzene	0.10	Not Detected	0.60	Not Detected
alpha-Chlorotoluene	0.10	Not Detected	0.52	Not Detected
1,2-Dichlorobenzene	0.10	Not Detected	0.60	Not Detected
1,2,4-Trichlorobenzene	0.50	Not Detected	3.7	Not Detected
Hexachlorobutadiene	0.50	Not Detected	5.3	Not Detected
Naphthalene	0.50	Not Detected	2.6	Not Detected
1,1,1,2-Tetrachloroethane	0.50	Not Detected	3.4	Not Detected
1,2,3-Trichloropropane	0.50	Not Detected	3.0	Not Detected
Acetonitrile	0.50	Not Detected	0.84	Not Detected
Butylbenzene	0.50	Not Detected	2.7	Not Detected
Dibromomethane	0.50	Not Detected	3.6	Not Detected
Ethyl Acetate	0.50	Not Detected	1.8	Not Detected
sec-Butylbenzene	0.50	Not Detected	2.7	Not Detected
Vinyl Acetate	2.0	Not Detected	7.0	Not Detected

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	113	70-130
Toluene-d8	99	70-130
4-Bromofluorobenzene	99	70-130

Air Toxics LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: CCV

Lab ID#: 0612240B-04A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**7122102**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 12/21/06 10:44 AM**	

Compound	%Recovery
Freon 12	110
Freon 114	108
Chloromethane	101
Vinyl Chloride	113
1,3-Butadiene	104
Bromomethane	111
Chloroethane	114
Freon 11	108
Ethanol	103
Freon 113	111
1,1-Dichloroethene	114
Acetone	107
2-Propanol	103
Carbon Disulfide	110
Methylene Chloride	105
Methyl tert-butyl ether	65 Q
trans-1,2-Dichloroethene	107
Hexane	104
1,1-Dichloroethane	109
2-Butanone (Methyl Ethyl Ketone)	95
cis-1,2-Dichloroethene	107
Tetrahydrofuran	100
Chloroform	116
1,1,1-Trichloroethane	120
Cyclohexane	107
Carbon Tetrachloride	127
Benzene	106
Heptane	106
1,2-Dichloropropane	106
1,4-Dioxane	112
Bromodichloromethane	120
cis-1,3-Dichloropropene	114
4-Methyl-2-pentanone	111
Toluene	107
trans-1,3-Dichloropropene	119
1,1,2-Trichloroethane	110
Tetrachloroethene	105
2-Hexanone	109
Dibromochloromethane	120

Air Toxics LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: CCV

Lab ID#: 0612240B-04A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**7122102**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 12/21/06 10:44 AM**	

Compound	%Recovery
Chlorobenzene	104
Ethyl Benzene	107
m,p-Xylene	98
o-Xylene	106
Styrene	100
Bromoform	120
Cumene	103
Propylbenzene	101
4-Ethyltoluene	99
1,3,5-Trimethylbenzene	106
1,2,4-Trimethylbenzene	106
1,3-Dichlorobenzene	103
1,4-Dichlorobenzene	103
alpha-Chlorotoluene	100
1,2-Dichlorobenzene	104
1,2,4-Trichlorobenzene	98
Hexachlorobutadiene	109
Naphthalene	108
1,1,1,2-Tetrachloroethane	80
1,2,3-Trichloropropane	68
Acetonitrile	98
Butylbenzene	60
Dibromomethane	73
Ethyl Acetate	104
sec-Butylbenzene	71
Vinyl Acetate	78

Q = Exceeds Quality Control limits.

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	111	70-130
Toluene-d8	101	70-130
4-Bromofluorobenzene	102	70-130

Air Toxics LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: LCS

Lab ID#: 0612240B-05A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**7122108**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 12/21/06 04:52 PM**	

Compound	%Recovery
Freon 12	113
Freon 114	110
Chloromethane	98
Vinyl Chloride	111
1,3-Butadiene	122
Bromomethane	112
Chloroethane	65 Q
Freon 11	108
Ethanol	118
Freon 113	111
1,1-Dichloroethene	112
Acetone	120
2-Propanol	115
Carbon Disulfide	121
Methylene Chloride	103
Methyl tert-butyl ether	61
trans-1,2-Dichloroethene	118
Hexane	112
1,1-Dichloroethane	108
2-Butanone (Methyl Ethyl Ketone)	103
cis-1,2-Dichloroethene	108
Tetrahydrofuran	107
Chloroform	115
1,1,1-Trichloroethane	119
Cyclohexane	113
Carbon Tetrachloride	129
Benzene	104
Heptane	112
1,2-Dichloropropane	105
1,4-Dioxane	118
Bromodichloromethane	123
cis-1,3-Dichloropropene	73
4-Methyl-2-pentanone	113
Toluene	107
trans-1,3-Dichloropropene	112
1,1,2-Trichloroethane	109
Tetrachloroethene	109
2-Hexanone	105
Dibromochloromethane	114

Air Toxics LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: LCS

Lab ID#: 0612240B-05A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**7122108**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 12/21/06 04:52 PM**	

Compound	%Recovery
Chlorobenzene	107
Ethyl Benzene	114
m,p-Xylene	95
o-Xylene	94
Styrene	107
Bromoform	94
Cumene	104
Propylbenzene	104
4-Ethyltoluene	105
1,3,5-Trimethylbenzene	90
1,2,4-Trimethylbenzene	75
1,3-Dichlorobenzene	110
1,4-Dichlorobenzene	108
alpha-Chlorotoluene	113
1,2-Dichlorobenzene	109
1,2,4-Trichlorobenzene	98
Hexachlorobutadiene	110
Naphthalene	144 Q
1,1,1,2-Tetrachloroethane	Not Spiked
1,2,3-Trichloropropane	Not Spiked
Acetonitrile	Not Spiked
Butylbenzene	Not Spiked
Dibromomethane	Not Spiked
Ethyl Acetate	Not Spiked
sec-Butylbenzene	Not Spiked
Vinyl Acetate	103

Q = Exceeds Quality Control limits.

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	113	70-130
Toluene-d8	101	70-130
4-Bromofluorobenzene	99	70-130

QA LEVEL II - ORGANIC DATA EVALUATION CHECKLIST

Company Name: Golder Associates
Project Name: Solutia Soil Vapor Sampling Event
Reviewer: J. White

Project Manager: M. Haddock
Project Number: 043-9670
Validation Date: 1/11/07

Laboratory: Air Toxics
SDG #: 0612129B
Analytical Method (type and no.): modified TO-15 Full Scan
Matrix: [X] Air [ ] Soil/Sed [ ] Water [ ] Waste [ ]
Sample Names: SV-5, SV-6

NOTE: Please provide calculation in Comment areas or on the back (if on the back please indicate in comment areas).

Field Information	YES	NO	NA	COMMENTS
a) Sampling dates noted?	☑	☐	☐	
b) Sampling team indicated?	☑	☐	☐	
c) Sample location noted?	☑	☐	☐	
d) Sample depth indicated (~~Soils~~)? Air	☑	☐	☐	
e) Sample type indicated (grab/composite)?	☑	☐	☐	
f) Field QC noted?	☐	☐	☑	
g) Field parameters collected (note types)?	☑	☐	☐	AIR
h) Field Calibration within control limits?	☑	☐	☐	
i) Notations of unacceptable field conditions/performances from field logs or field notes?	☐	☑	☐	
j) Does the laboratory narrative indicate deficiencies?	☐	☑	☐	

Note Deficiencies:

Chain-of-Custody (COC)	YES	NO	NA	COMMENTS
a) Was the COC properly completed?	☑	☐	☐	
b) Was the COC signed by both field and laboratory personnel?	☑	☐	☐	
c) Were samples received in good condition?	☑	☐	☐	

General (reference QAPP or Method)	YES	NO	NA	COMMENTS
a) Were hold times met for sample pretreatment?	☑	☐	☐	
b) Were hold times met for sample analysis?	☑	☐	☐	
c) Were the correct preservatives used?	☐	☐	☑	
d) Was the correct method used?	☑	☐	☐	
e) Were appropriate reporting limits achieved?	☑	☐	☐	
f) Were any sample dilutions noted?	☐	☑	☐	
g) Were any matrix problems noted?	☐	☑	☐	

QA LEVEL II - ORGANIC DATA EVALUATION CHECKLIST

Blanks	***YES***	***NO***	***NA***	***COMMENTS***
a) Were analytes detected in the method blank(s)?	☐	☑	☐	
b) Were analytes detected in the field blank(s)?	☐	☐	☑	
c) Were analytes detected in the equipment blank(s)?	☑	☐	☐	
d) Were analytes detected in the trip blank(s)?	☐	☐	☑	

Laboratory Control Sample (LCS)	***YES***	***NO***	***NA***	***COMMENTS***
a) Was a LCS analyzed once per SDG?	☑	☐	☐	
b) Were the proper compounds included in the LCS?	☑	☐	☐	
c) Was the LCS accuracy criteria met?	☐	☑	☐	cis-1,3-Dichloropropene, Styrene, 1,2,4-Trimethylbenzene

Duplicates	***YES***	***NO***	***NA***	***COMMENTS***
a) Were field duplicates collected (note original and duplicate sample names)?	☐	☑	☐	
b) Were field dup precision criteria met (note RPD)?	☐	☐	☑	
c) Were lab duplicates analyzed (note original and duplicate samples)?	☐	☑	☐	
d) Were lab dup. precision criteria met (note RPD)?	☐	☐	☑	

Blind Standards	***YES***	***NO***	***NA***	***COMMENTS***
a) Was a blind standard used (indicate name, compounds included and concentrations)?	☐	☐	☑	
b) Was the %D within control limits?	☐	☐	☑	

Matrix Spike/Matrix Spike Duplicate (MS/MSD)	***YES***	***NO***	***NA***	***COMMENTS***
a) Was MS accuracy criteria met?	☐	☐	☑	
Recovery could not be calculated since sample contained high concentration of analyte?	☐	☐	☑	
b) Was MSD accuracy criteria met?	☐	☐	☑	
Recovery could not be calculated since sample contained high concentration of analyte?	☐	☐	☑	
c) Were MS/MSD precision criteria met?	☐	☐	☑	

Surrogate Spikes	***YES***	***NO***	***NA***	***COMMENTS***
a) Were surrogate recoveries within control limits?	☑	☐	☐	
b) Were surrogate recoveries not calculated due to dilutions?	☐	☐	☑	

Comments/Notes:

Data Qualification:

Sample Name	Constituent(s)	Result	Qualifier	Reason
SV-5	Freon 11		J	Detections in Equip Blank
	Ethanol			
	Acetone			
	2-Butanone			
	Benzene			
	4-methyl-2-Pentanone			
	m,p-Xylene			
	o-Xylene			
	1,2,4-Trimethylbenzene			LCS outside control limits
SV-6	Freon 11		J	
	Ethanol			Detections in Equip Blank
	Acetone			
	2-Propanol			
	2-Butanone			
	Benzene			
	m,p-xylene			
	o-xylene			
	4-ethyltoluene			
	1,2,4-trimethylbenzene			LCS outside Control limits

Signature: [illegible]   Date: 01/12/07

Air Toxics LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

WORK ORDER #: 0612129B

Work Order Summary

CLIENT:	Mr Mark Haddock Golder Associates, Inc 820 South Main Street Suite 100 St Charles, MO 63301	**BILL TO:**	Mr. Mark Haddock Golder Associates, Inc. 820 South Main Street Suite 100 St. Charles, MO 63301
PHONE:	(636)-724-9191	**P.O. #**	043-9670
FAX:	(636-724-9323	**PROJECT #**	043-9670 Solutia Soil Vapor Sampling Event
DATE RECEIVED:	12/06/2006	**CONTACT:**	Brandon Dunmore
DATE COMPLETED:	12/19/2006		

FRACTION #	NAME	TEST	RECEIPT VAC./PRES.
01A	SV-5 Cerro	Modified TO-15	4.0 "Hg
02A	SV-6 Cerro	Modified TO-15	2.0 "Hg
03A	Lab Blank	Modified TO-15	NA
04A	CCV	Modified TO-15	NA
05A	LCS	Modified TO-15	NA

CERTIFIED BY: _____ DATE: 12/19/06

Laboratory Director

Certfication numbers: CA NELAP - 02110CA, LA NELAP/LELAP- AI 30763, NJ NELAP - CA004
NY NELAP - 11291, UT NELAP - 9166389892
Name of Accrediting Agency: NELAP/Florida Department of Health, Scope of Application: Clean Air Act,
Accreditation number: E87680, Effective date: 07/01/06, Expiration date: 06/30/07
Air Toxics Ltd certifies that the test results contained in this report meet all requirements of the NELAC standards

180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 95630
(916) 985-1000 (800) 985-5955 FAX (916) 985-1020

LABORATORY NARRATIVE
Modified TO-15
Golder Associates, Inc.
Workorder# 0612129B

Two 6 Liter Summa Special (100% Certified) samples were received on December 06, 2006. The laboratory performed analysis via modified EPA Method TO-15 using GC/MS in the full scan mode. The method involves concentrating up to 1.0 liter of air. The concentrated aliquot is then flash vaporized and swept through a water management system to remove water vapor. Following dehumidification, the sample passes directly into the GC/MS for analysis.

Method modifications taken to run these samples are summarized in the below table. Specific project requirements may over-ride the ATL modifications.

Requirement	*TO-15*	*ATL Modifications*
ICAL %RSD acceptance criteria	+- 30% RSD with 2 compounds allowed out to < 40% RSD	30% RSD with 4 compounds allowed out to < 40% RSD
Daily Calibration	+- 30% Difference	</= 30% Difference with four allowed out up to </=40% ; flag and narrate outliers
Blank and standards	Zero air	Nitrogen
Method Detection Limit	Follow 40CFR Pt 136 App. B	The MDL met all relevant requirements in Method TO-15 (statistical MDL less than the LOQ) The concentration of the spiked replicate may have exceeded 10X the calculated MDL in some cases
Sample collection media	Summa canister	ATL recommends use of summa canisters to insure data defensibility, but will report results from Tedlar bags at client request

Receiving Notes

The Chain of Custody (COC) information for samples SV-5 Cerro and SV-6 Cerro did not match the entries on the sample tags with regard to sample identification. The discrepancy was noted in the Sample Receipt Confirmation email/fax and the information on the COC was used to process and report the samples.

Analytical Notes

The reported LCS for each daily batch has been derived from more than one analytical file.

Definition of Data Qualifying Flags

Eight qualifiers may have been used on the data analysis sheets and indicates as follows:

B - Compound present in laboratory blank greater than reporting limit (background subtraction not performed).

J - Estimated value.

E - Exceeds instrument calibration range.

S - Saturated peak.

Q - Exceeds quality control limits.
U - Compound analyzed for but not detected above the reporting limit.
UJ- Non-detected compound associated with low bias in the CCV
N - The identification is based on presumptive evidence.

File extensions may have been used on the data analysis sheets and indicates as follows:
a-File was requantified
b-File was quantified by a second column and detector
r1-File was requantified for the purpose of reissue

Air Toxics LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Summary of Detected Compounds
MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

Client Sample ID: SV-5 Cerro

Lab ID#: 0612129B-01A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Freon 12	0.16	0.53	0.77	2.6
Chloromethane	0.16	0.27	0.32	0.56
1,3-Butadiene	0.16	0.22	0.34	0.48
Freon 11	0.16	0.17 J	0.87	0.98
Ethanol	0.78	1.0 J	1.5	1.9
Acetone	0.78	8.7 J	1.8	20
Hexane	0.16	3.8	0.55	14
2-Butanone (Methyl Ethyl Ketone)	0.16	0.78 J	0.46	2.3
Chloroform	0.16	4.1	0.76	20
1,1,1-Trichloroethane	0.16	0.58	0.84	3.1
Cyclohexane	0.16	1.8	0.53	6.3
Benzene	0.16	1.1 J	0.50	3.6
Heptane	0.16	2.0	0.64	8.4
4-Methyl-2-pentanone	0.16	0.23 J	0.63	0.95
Toluene	0.16	2.7	0.58	10
Ethyl Benzene	0.16	0.73	0.67	3.2
m,p-Xylene	0.16	0.84 J	0.67	3.7
o-Xylene	0.16	0.31 J	0.67	1.3
4-Ethyltoluene	0.16	0.15 J	0.76	0.75 J
1,3,5-Trimethylbenzene	0.16	0.20	0.76	0.98
1,2,4-Trimethylbenzene	0.16	0.30 J	0.76	1.5
Butylbenzene	0.78	0.97	4.2	5.3

Client Sample ID: SV-6 Cerro

Lab ID#: 0612129B-02A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Freon 12	0.14	0.57	0.71	2.8
Chloromethane	0.14	0.22	0.30	0.45
Vinyl Chloride	0.14	3.0	0.37	7.6
Freon 11	0.14	0.27 J	0.81	1.5
Ethanol	0.72	1.2 J	1.4	2.2
Freon 113	0.14	0.18	1.1	1.4
1,1-Dichloroethene	0.14	0.26	0.57	1.0
Acetone	0.72	6.2 J	1.7	15
2-Propanol	0.72	1.0 J	1.8	2.5
Hexane	0.14	0.23	0.51	0.81

Air Toxics LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Summary of Detected Compounds
MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

Client Sample ID: SV-6 Cerro

Lab ID#: 0612129B-02A

1,1-Dichloroethane	0.14	5.5	0.58	22
2-Butanone (Methyl Ethyl Ketone)	0.14	0.76 J	0.42	2.2
cis-1,2-Dichloroethene	0.14	25	0.57	99
Chloroform	0.14	0.68	0.70	3.3
1,1,1-Trichloroethane	0.14	9.9	0.78	54
Cyclohexane	0.14	0.35	0.50	1.2
Benzene	0.14	0.42 J	0.46	1.3
Heptane	0.14	0.28	0.59	1.1
Toluene	0.14	7.7	0.54	29
Tetrachloroethene	0.14	31	0.98	210
Ethyl Benzene	0.14	0.87	0.62	3.8
m,p-Xylene	0.14	2.4 J	0.62	10
o-Xylene	0.14	0.59 J	0.62	2.6
4-Ethyltoluene	0.14	0.30 J	0.71	1.5
1,3,5-Trimethylbenzene	0.14	0.24	0.71	1.2
1,2,4-Trimethylbenzene	0.14	0.53 J	0.71	2.6
Butylbenzene	0.72	1.7	4.0	9.4

Air Toxics LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: SV-5 Cerro

Lab ID#: 0612129B-01A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**g121420**	**Date of Collection:**	**12/5/06**
Dil. Factor:	**1.55**	**Date of Analysis:**	**12/14/06 07:58 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Freon 12	0.16	0.53	0.77	2.6
Freon 114	0.16	Not Detected	1.1	Not Detected
Chloromethane	0.16	0.27	0.32	0.56
Vinyl Chloride	0.16	Not Detected	0.40	Not Detected
1,3-Butadiene	0.16	0.22	0.34	0.48
Bromomethane	0.16	Not Detected	0.60	Not Detected
Chloroethane	0.16	Not Detected	0.41	Not Detected
Freon 11	0.16	0.17	0.87	0.98
Ethanol	0.78	1.0	1.5	1.9
Freon 113	0.16	Not Detected	1.2	Not Detected
1,1-Dichloroethene	0.16	Not Detected	0.61	Not Detected
Acetone	0.78	8.7	1.8	20
2-Propanol	0.78	Not Detected	1.9	Not Detected
Carbon Disulfide	0.78	Not Detected	2.4	Not Detected
Methylene Chloride	0.31	Not Detected	1.1	Not Detected
Methyl tert-butyl ether	0.16	Not Detected	0.56	Not Detected
trans-1,2-Dichloroethene	0.16	Not Detected	0.61	Not Detected
Hexane	0.16	3.8	0.55	14
1,1-Dichloroethane	0.16	Not Detected	0.63	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.16	0.78	0.46	2.3
cis-1,2-Dichloroethene	0.16	Not Detected	0.61	Not Detected
Tetrahydrofuran	0.78	Not Detected	2.3	Not Detected
Chloroform	0.16	4.1	0.76	20
1,1,1-Trichloroethane	0.16	0.58	0.84	3.1
Cyclohexane	0.16	1.8	0.53	6.3
Carbon Tetrachloride	0.16	Not Detected	0.98	Not Detected
Benzene	0.16	1.1	0.50	3.6
Heptane	0.16	2.0	0.64	8.4
1,2-Dichloropropane	0.16	Not Detected	0.72	Not Detected
1,4-Dioxane	0.16	Not Detected	0.56	Not Detected
Bromodichloromethane	0.16	Not Detected	1.0	Not Detected
cis-1,3-Dichloropropene	0.16	Not Detected	0.70	Not Detected
4-Methyl-2-pentanone	0.16	0.23	0.63	0.95
Toluene	0.16	2.7	0.58	10
trans-1,3-Dichloropropene	0.16	Not Detected	0.70	Not Detected
1,1,2-Trichloroethane	0.16	Not Detected	0.84	Not Detected
Tetrachloroethene	0.16	Not Detected	1.0	Not Detected
2-Hexanone	0.78	Not Detected	3.2	Not Detected
Dibromochloromethane	0.16	Not Detected	1.3	Not Detected

Air Toxics LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: SV-5 Cerro

Lab ID#: 0612129B-01A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**g121420**	**Date of Collection: 12/5/06**	
Dil. Factor:	**1.55**	**Date of Analysis: 12/14/06 07:58 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Chlorobenzene	0.16	Not Detected	0.71	Not Detected
Ethyl Benzene	0.16	0.73	0.67	3.2
m,p-Xylene	0.16	0.84	0.67	3.7
o-Xylene	0.16	0.31	0.67	1.3
Styrene	0.16	Not Detected	0.66	Not Detected
Bromoform	0.16	Not Detected	1.6	Not Detected
Cumene	0.16	Not Detected	0.76	Not Detected
Propylbenzene	0.16	Not Detected	0.76	Not Detected
4-Ethyltoluene	0.16	0.15 J	0.76	0.75 J
1,3,5-Trimethylbenzene	0.16	0.20	0.76	0.98
1,2,4-Trimethylbenzene	0.16	0.30	0.76	1.5
1,3-Dichlorobenzene	0.16	Not Detected	0.93	Not Detected
1,4-Dichlorobenzene	0.16	Not Detected	0.93	Not Detected
alpha-Chlorotoluene	0.16	Not Detected	0.80	Not Detected
1,2-Dichlorobenzene	0.16	Not Detected	0.93	Not Detected
1,2,4-Trichlorobenzene	0.78	Not Detected	5.8	Not Detected
Hexachlorobutadiene	0.78	Not Detected	8.3	Not Detected
Naphthalene	0.78	Not Detected	4.1	Not Detected
1,1,1,2-Tetrachloroethane	0.78	Not Detected	5.3	Not Detected
1,2,3-Trichloropropane	0.78	Not Detected	4.7	Not Detected
Acetonitrile	0.78	Not Detected	1.3	Not Detected
Butylbenzene	0.78	0.97	4.2	5.3
Dibromomethane	0.78	Not Detected	5.5	Not Detected
Ethyl Acetate	0.78	Not Detected	2.8	Not Detected
sec-Butylbenzene	0.78	Not Detected	4.2	Not Detected
Vinyl Acetate	3.1	Not Detected	11	Not Detected

J = Estimated value

Container Type: 6 Liter Summa Special (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	100	70-130
Toluene-d8	95	70-130
4-Bromofluorobenzene	94	70-130

Air Toxics LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: SV-6 Cerro

Lab ID#: 0612129B-02A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**g121422**	**Date of Collection:**	**12/5/06**
Dil. Factor:	**1.44**	**Date of Analysis:**	**12/14/06 09:46 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Freon 12	0.14	0.57	0.71	2.8
Freon 114	0.14	Not Detected	1.0	Not Detected
Chloromethane	0.14	0.22	0.30	0.45
Vinyl Chloride	0.14	3.0	0.37	7.6
1,3-Butadiene	0.14	Not Detected	0.32	Not Detected
Bromomethane	0.14	Not Detected	0.56	Not Detected
Chloroethane	0.14	Not Detected	0.38	Not Detected
Freon 11	0.14	0.27	0.81	1.5
Ethanol	0.72	1.2	1.4	2.2
Freon 113	0.14	0.18	1.1	1.4
1,1-Dichloroethene	0.14	0.26	0.57	1.0
Acetone	0.72	6.2	1.7	15
2-Propanol	0.72	1.0	1.8	2.5
Carbon Disulfide	0.72	Not Detected	2.2	Not Detected
Methylene Chloride	0.29	Not Detected	1.0	Not Detected
Methyl tert-butyl ether	0.14	Not Detected	0.52	Not Detected
trans-1,2-Dichloroethene	0.14	Not Detected	0.57	Not Detected
Hexane	0.14	0.23	0.51	0.81
1,1-Dichloroethane	0.14	5.5	0.58	22
2-Butanone (Methyl Ethyl Ketone)	0.14	0.76	0.42	2.2
cis-1,2-Dichloroethene	0.14	25	0.57	99
Tetrahydrofuran	0.72	Not Detected	2.1	Not Detected
Chloroform	0.14	0.68	0.70	3.3
1,1,1-Trichloroethane	0.14	9.9	0.78	54
Cyclohexane	0.14	0.35	0.50	1.2
Carbon Tetrachloride	0.14	Not Detected	0.91	Not Detected
Benzene	0.14	0.42	0.46	1.3
Heptane	0.14	0.28	0.59	1.1
1,2-Dichloropropane	0.14	Not Detected	0.66	Not Detected
1,4-Dioxane	0.14	Not Detected	0.52	Not Detected
Bromodichloromethane	0.14	Not Detected	0.96	Not Detected
cis-1,3-Dichloropropene	0.14	Not Detected	0.65	Not Detected
4-Methyl-2-pentanone	0.14	Not Detected	0.59	Not Detected
Toluene	0.14	7.7	0.54	29
trans-1,3-Dichloropropene	0.14	Not Detected	0.65	Not Detected
1,1,2-Trichloroethane	0.14	Not Detected	0.78	Not Detected
Tetrachloroethene	0.14	31	0.98	210
2-Hexanone	0.72	Not Detected	2.9	Not Detected
Dibromochloromethane	0.14	Not Detected	1.2	Not Detected

Air Toxics LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: SV-6 Cerro

Lab ID#: 0612129B-02A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**g121422**	**Date of Collection: 12/5/06**	
Dil. Factor:	**1.44**	**Date of Analysis: 12/14/06 09:46 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Chlorobenzene	0.14	Not Detected	0.66	Not Detected
Ethyl Benzene	0.14	0.87	0.62	3.8
m,p-Xylene	0.14	2.4	0.62	10
o-Xylene	0.14	0.59	0.62	2.6
Styrene	0.14	Not Detected	0.61	Not Detected
Bromoform	0.14	Not Detected	1.5	Not Detected
Cumene	0.14	Not Detected	0.71	Not Detected
Propylbenzene	0.14	Not Detected	0.71	Not Detected
4-Ethyltoluene	0.14	0.30	0.71	1.5
1,3,5-Trimethylbenzene	0.14	0.24	0.71	1.2
1,2,4-Trimethylbenzene	0.14	0.53	0.71	2.6
1,3-Dichlorobenzene	0.14	Not Detected	0.86	Not Detected
1,4-Dichlorobenzene	0.14	Not Detected	0.86	Not Detected
alpha-Chlorotoluene	0.14	Not Detected	0.74	Not Detected
1,2-Dichlorobenzene	0.14	Not Detected	0.86	Not Detected
1,2,4-Trichlorobenzene	0.72	Not Detected	5.3	Not Detected
Hexachlorobutadiene	0.72	Not Detected	7.7	Not Detected
Naphthalene	0.72	Not Detected	3.8	Not Detected
1,1,1,2-Tetrachloroethane	0.72	Not Detected	4.9	Not Detected
1,2,3-Trichloropropane	0.72	Not Detected	4.3	Not Detected
Acetonitrile	0.72	Not Detected	1.2	Not Detected
Butylbenzene	0.72	1.7	4.0	9.4
Dibromomethane	0.72	Not Detected	5.1	Not Detected
Ethyl Acetate	0.72	Not Detected	2.6	Not Detected
sec-Butylbenzene	0.72	Not Detected	4.0	Not Detected
Vinyl Acetate	2.9	Not Detected	10	Not Detected

Container Type: 6 Liter Summa Special (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	101	70-130
Toluene-d8	98	70-130
4-Bromofluorobenzene	92	70-130

Air Toxics LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: Lab Blank

Lab ID#: 0612129B-03A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**g121414**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 12/14/06 04:12 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Freon 12	0.10	Not Detected	0.49	Not Detected
Freon 114	0.10	Not Detected	0.70	Not Detected
Chloromethane	0.10	Not Detected	0.21	Not Detected
Vinyl Chloride	0.10	Not Detected	0.26	Not Detected
1,3-Butadiene	0.10	Not Detected	0.22	Not Detected
Bromomethane	0.10	Not Detected	0.39	Not Detected
Chloroethane	0.10	Not Detected	0.26	Not Detected
Freon 11	0.10	Not Detected	0.56	Not Detected
Ethanol	0.50	Not Detected	0.94	Not Detected
Freon 113	0.10	Not Detected	0.77	Not Detected
1,1-Dichloroethene	0.10	Not Detected	0.40	Not Detected
Acetone	0.50	Not Detected	1.2	Not Detected
2-Propanol	0.50	Not Detected	1.2	Not Detected
Carbon Disulfide	0.50	Not Detected	1.6	Not Detected
Methylene Chloride	0.20	Not Detected	0.69	Not Detected
Methyl tert-butyl ether	0.10	Not Detected	0.36	Not Detected
trans-1,2-Dichloroethene	0.10	Not Detected	0.40	Not Detected
Hexane	0.10	Not Detected	0.35	Not Detected
1,1-Dichloroethane	0.10	Not Detected	0.40	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.10	Not Detected	0.29	Not Detected
cis-1,2-Dichloroethene	0.10	Not Detected	0.40	Not Detected
Tetrahydrofuran	0.50	Not Detected	1.5	Not Detected
Chloroform	0.10	Not Detected	0.49	Not Detected
1,1,1-Trichloroethane	0.10	Not Detected	0.54	Not Detected
Cyclohexane	0.10	Not Detected	0.34	Not Detected
Carbon Tetrachloride	0.10	Not Detected	0.63	Not Detected
Benzene	0.10	Not Detected	0.32	Not Detected
Heptane	0.10	Not Detected	0.41	Not Detected
1,2-Dichloropropane	0.10	Not Detected	0.46	Not Detected
1,4-Dioxane	0.10	Not Detected	0.36	Not Detected
Bromodichloromethane	0.10	Not Detected	0.67	Not Detected
cis-1,3-Dichloropropene	0.10	Not Detected	0.45	Not Detected
4-Methyl-2-pentanone	0.10	Not Detected	0.41	Not Detected
Toluene	0.10	Not Detected	0.38	Not Detected
trans-1,3-Dichloropropene	0.10	Not Detected	0.45	Not Detected
1,1,2-Trichloroethane	0.10	Not Detected	0.54	Not Detected
Tetrachloroethene	0.10	Not Detected	0.68	Not Detected
2-Hexanone	0.50	Not Detected	2.0	Not Detected
Dibromochloromethane	0.10	Not Detected	0.85	Not Detected

Air Toxics LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: Lab Blank

Lab ID#: 0612129B-03A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**g121414**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 12/14/06 04:12 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Chlorobenzene	0.10	Not Detected	0.46	Not Detected
Ethyl Benzene	0.10	Not Detected	0.43	Not Detected
m,p-Xylene	0.10	Not Detected	0.43	Not Detected
o-Xylene	0.10	Not Detected	0.43	Not Detected
Styrene	0.10	Not Detected	0.42	Not Detected
Bromoform	0.10	Not Detected	1.0	Not Detected
Cumene	0.10	Not Detected	0.49	Not Detected
Propylbenzene	0.10	Not Detected	0.49	Not Detected
4-Ethyltoluene	0.10	Not Detected	0.49	Not Detected
1,3,5-Trimethylbenzene	0.10	Not Detected	0.49	Not Detected
1,2,4-Trimethylbenzene	0.10	Not Detected	0.49	Not Detected
1,3-Dichlorobenzene	0.10	Not Detected	0.60	Not Detected
1,4-Dichlorobenzene	0.10	Not Detected	0.60	Not Detected
alpha-Chlorotoluene	0.10	Not Detected	0.52	Not Detected
1,2-Dichlorobenzene	0.10	Not Detected	0.60	Not Detected
1,2,4-Trichlorobenzene	0.50	Not Detected	3.7	Not Detected
Hexachlorobutadiene	0.50	Not Detected	5.3	Not Detected
Naphthalene	0.50	Not Detected	2.6	Not Detected
1,1,1,2-Tetrachloroethane	0.50	Not Detected	3.4	Not Detected
1,2,3-Trichloropropane	0.50	Not Detected	3.0	Not Detected
Acetonitrile	0.50	Not Detected	0.84	Not Detected
Butylbenzene	0.50	Not Detected	2.7	Not Detected
Dibromomethane	0.50	Not Detected	3.6	Not Detected
Ethyl Acetate	0.50	Not Detected	1.8	Not Detected
sec-Butylbenzene	0.50	Not Detected	2.7	Not Detected
Vinyl Acetate	2.0	Not Detected	7.0	Not Detected

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	103	70-130
Toluene-d8	91	70-130
4-Bromofluorobenzene	96	70-130

Air Toxics LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: CCV

Lab ID#: 0612129B-04A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**g121402**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 12/14/06 08:15 AM**	

Compound	%Recovery
Freon 12	112
Freon 114	109
Chloromethane	130
Vinyl Chloride	107
1,3-Butadiene	102
Bromomethane	97
Chloroethane	105
Freon 11	100
Ethanol	93
Freon 113	102
1,1-Dichloroethene	105
Acetone	105
2-Propanol	87
Carbon Disulfide	111
Methylene Chloride	103
Methyl tert-butyl ether	85
trans-1,2-Dichloroethene	97
Hexane	94
1,1-Dichloroethane	103
2-Butanone (Methyl Ethyl Ketone)	104
cis-1,2-Dichloroethene	96
Tetrahydrofuran	100
Chloroform	102
1,1,1-Trichloroethane	100
Cyclohexane	100
Carbon Tetrachloride	100
Benzene	98
Heptane	103
1,2-Dichloropropane	106
1,4-Dioxane	90
Bromodichloromethane	95
cis-1,3-Dichloropropene	91
4-Methyl-2-pentanone	96
Toluene	96
trans-1,3-Dichloropropene	104
1,1,2-Trichloroethane	108
Tetrachloroethene	99
2-Hexanone	89
Dibromochloromethane	100

Air Toxics LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: CCV

Lab ID#: 0612129B-04A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**g121402**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 12/14/06 08:15 AM**	

Compound	%Recovery
Chlorobenzene	103
Ethyl Benzene	102
m,p-Xylene	98
o-Xylene	92
Styrene	100
Bromoform	101
Cumene	90
Propylbenzene	94
4-Ethyltoluene	91
1,3,5-Trimethylbenzene	89
1,2,4-Trimethylbenzene	88
1,3-Dichlorobenzene	86
1,4-Dichlorobenzene	84
alpha-Chlorotoluene	93
1,2-Dichlorobenzene	81
1,2,4-Trichlorobenzene	74
Hexachlorobutadiene	78
Naphthalene	107
1,1,1,2-Tetrachloroethane	125
1,2,3-Trichloropropane	96
Acetonitrile	98
Butylbenzene	100
Dibromomethane	88
Ethyl Acetate	95
sec-Butylbenzene	98
Vinyl Acetate	98

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	97	70-130
Toluene-d8	103	70-130
4-Bromofluorobenzene	98	70-130

Air Toxics LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: LCS

Lab ID#: 0612129B-05A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**g121404**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 12/14/06 09:14 AM**	

Compound	%Recovery
Freon 12	110
Freon 114	105
Chloromethane	122
Vinyl Chloride	100
1,3-Butadiene	103
Bromomethane	96
Chloroethane	103
Freon 11	102
Ethanol	106
Freon 113	101
1,1-Dichloroethene	105
Acetone	106
2-Propanol	94
Carbon Disulfide	117
Methylene Chloride	108
Methyl tert-butyl ether	88
trans-1,2-Dichloroethene	100
Hexane	96
1,1-Dichloroethane	105
2-Butanone (Methyl Ethyl Ketone)	110
cis-1,2-Dichloroethene	100
Tetrahydrofuran	102
Chloroform	101
1,1,1-Trichloroethane	102
Cyclohexane	102
Carbon Tetrachloride	99
Benzene	100
Heptane	102
1,2-Dichloropropane	107
1,4-Dioxane	93
Bromodichloromethane	92
cis-1,3-Dichloropropene	59 Q
4-Methyl-2-pentanone	97
Toluene	98
trans-1,3-Dichloropropene	114
1,1,2-Trichloroethane	112
Tetrachloroethene	106
2-Hexanone	91
Dibromochloromethane	99

Air Toxics LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: LCS

Lab ID#: 0612129B-05A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**g121404**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 12/14/06 09:14 AM**	

Compound	%Recovery
Chlorobenzene	109
Ethyl Benzene	119
m,p-Xylene	100
o-Xylene	87
Styrene	69 Q
Bromoform	86
Cumene	92
Propylbenzene	98
4-Ethyltoluene	98
1,3,5-Trimethylbenzene	84
1,2,4-Trimethylbenzene	66 Q
1,3-Dichlorobenzene	101
1,4-Dichlorobenzene	99
alpha-Chlorotoluene	110
1,2-Dichlorobenzene	97
1,2,4-Trichlorobenzene	75
Hexachlorobutadiene	80
Naphthalene	98
1,1,1,2-Tetrachloroethane	Not Spiked
1,2,3-Trichloropropane	Not Spiked
Acetonitrile	Not Spiked
Butylbenzene	Not Spiked
Dibromomethane	Not Spiked
Ethyl Acetate	Not Spiked
sec-Butylbenzene	Not Spiked
Vinyl Acetate	104

Q = Exceeds Quality Control limits.

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	97	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	97	70-130

QA LEVEL II - ORGANIC DATA EVALUATION CHECKLIST

Company Name: Golder Associates
Project Name: Solutia Soil Vapor Sampling Event
Reviewer: J. White

Project Manager: M. Haddock
Project Number: 043-9670
Validation Date: _____

Laboratory: AirToxics LTD.
SDG #: 0612129
Analytical Method (type and no.): Modified TO-15 SIM
Matrix: [X] Air [ ] Soil/Sed [ ] Water [ ] Waste [ ] _____
Sample Names: SV-5, SV-6

NOTE: Please provide calculation in Comment areas or on the back (if on the back please indicate in comment areas).

Field Information	***YES***	***NO***	***NA***	***COMMENTS***
a) Sampling dates noted?	☑	☐	☐	
b) Sampling team indicated?	☑	☐	☐	
c) Sample location noted?	☑	☐	☐	
d) Sample depth indicated ~~(Soils)~~? Air	☑	☐	☐	
e) Sample type indicated (grab/composite)?	☑	☐	☐	
f) Field QC noted?	☐	☐	☑	
g) Field parameters collected (note types)?	☑	☐	☐	PID
h) Field Calibration within control limits?	☑	☐	☐	
i) Notations of unacceptable field conditions/performances from field logs or field notes?	☐	☑	☐	
j) Does the laboratory narrative indicate deficiencies?	☐	☑	☐	

Note Deficiencies: _____

Chain-of-Custody (COC)	***YES***	***NO***	***NA***	***COMMENTS***
a) Was the COC properly completed?	☑	☐	☐	
b) Was the COC signed by both field and laboratory personnel?	☑	☐	☐	
c) Were samples received in good condition?	☑	☐	☐	

General (reference QAPP or Method)	***YES***	***NO***	***NA***	***COMMENTS***
a) Were hold times met for sample pretreatment?	☑	☐	☐	HT = 14D from Collection
b) Were hold times met for sample analysis?	☑	☐	☐	HT = 10D from Receipt
c) Were the correct preservatives used?	☐	☐	☑	
d) Was the correct method used?	☑	☐	☐	
e) Were appropriate reporting limits achieved?	☑	☐	☐	
f) Were any sample dilutions noted?	☐	☑	☐	
g) Were any matrix problems noted?	☐	☑	☐	

QA LEVEL II - ORGANIC DATA EVALUATION CHECKLIST

Blanks	***YES***	***NO***	***NA***	***COMMENTS***
a) Were analytes detected in the method blank(s)?	☐	☑	☐	
b) Were analytes detected in the field blank(s)?	☐	☐	☑	
c) Were analytes detected in the equipment blank(s)?	☐	☑	☐	
d) Were analytes detected in the trip blank(s)?	☐	☐	☑	

Laboratory Control Sample (LCS)	***YES***	***NO***	***NA***	***COMMENTS***
a) Was a LCS analyzed once per SDG?	☑	☐	☐	
b) Were the proper compounds included in the LCS?	☑	☐	☐	
c) Was the LCS accuracy criteria met?	☑	☐	☐	

Duplicates	***YES***	***NO***	***NA***	***COMMENTS***
a) Were field duplicates collected (note original and duplicate sample names)?	☐	☑	☐	
b) Were field dup. precision criteria met (note RPD)?	☐	☐	☑	
c) Were lab duplicates analyzed (note original and duplicate samples)?	☐	☑	☐	
d) Were lab dup. precision criteria met (note RPD)?	☐	☐	☑	

Blind Standards	***YES***	***NO***	***NA***	***COMMENTS***
a) Was a blind standard used (indicate name, compounds included and concentrations)?	☐	☐	☑	
b) Was the %D within control limits?	☐	☐	☑	

Matrix Spike/Matrix Spike Duplicate (MS/MSD)	***YES***	***NO***	***NA***	***COMMENTS***
a) Was MS accuracy criteria met?	☐	☐	☑	
Recovery could not be calculated since sample contained high concentration of analyte?	☐	☐	☑	
b) Was MSD accuracy criteria met?	☐	☐	☑	
Recovery could not be calculated since sample contained high concentration of analyte?	☐	☐	☑	
c) Were MS/MSD precision criteria met?	☐	☐	☑	

Surrogate Spikes	***YES***	***NO***	***NA***	***COMMENTS***
a) Were surrogate recoveries within control limits?	☑	☐	☐	
b) Were surrogate recoveries not calculated due to dilutions?	☐	☐	☑	

Comments/Notes:

QA LEVEL II - ORGANIC DATA EVALUATION CHECKLIST

Data Qualification:

Sample Name	Constituent(s)	Result	Qualifier	Reason
No Qualifiers				

Signature: Justin Wilkes Date: 1/11/07

Air Toxics LTD.
AN ENVIRONMENTAL ANALYTICAL LABORATORY

WORK ORDER #: 0612129

Work Order Summary

CLIENT:	Mr. Mark Haddock Golder Associates, Inc. 820 South Main Street Suite 100 St Charles, MO 63301	**BILL TO:**	Mr. Mark Haddock Golder Associates, Inc. 820 South Main Street Suite 100 St. Charles, MO 63301
PHONE:	(636)-724-9191	**P.O. #**	043-9670
FAX:	(636-724-9323	**PROJECT #**	043-9670 Solutia Soil Vapor Sampling Event
DATE RECEIVED:	12/06/2006	**CONTACT:**	Brandon Dunmore
DATE COMPLETED:	12/19/2006		

FRACTION #	NAME	TEST	RECEIPT VAC./PRES.
01A	SV-5 Cerro	Modified TO-15 SIM	4.0 "Hg
02A	SV-6 Cerro	Modified TO-15 SIM	2.0 "Hg
03A	Lab Blank	Modified TO-15 SIM	NA
04A	CCV	Modified TO-15 SIM	NA
05A	LCS	Modified TO-15 SIM	NA

CERTIFIED BY: _____ DATE: 12/19/06

Laboratory Director

Certfication numbers: CA NELAP - 02110CA, LA NELAP/LELAP- AI 30763, NJ NELAP - CA004
NY NELAP - 11291, UT NELAP - 9166389892
Name of Accrediting Agency: NELAP/Florida Department of Health, Scope of Application: Clean Air Act,
Accreditation number: E87680, Effective date: 07/01/06, Expiration date: 06/30/07
Air Toxics Ltd. certifies that the test results contained in this report meet all requirements of the NELAC standards

180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 95630
(916) 985-1000 (800) 985-5955 FAX (916) 985-1020

LABORATORY NARRATIVE
Modified TO-15 SIM
Golder Associates, Inc.
Workorder# 0612129

Two 6 Liter Summa Special (100% Certified) samples were received on December 06, 2006. The laboratory performed analysis via modified EPA Method TO-15 using GC/MS in the SIM acquisition mode. The method involves concentrating up to 0.5 liters of air. The concentrated aliquot is then flash vaporized and swept through a water management system to remove water vapor. Following dehumidification, the sample passes directly into the GC/MS for analysis.

Method modifications taken to run these samples are summarized in the below table. Specific project requirements may over-ride the ATL modifications.

Requirement	*TO-15*	*ATL Modifications*
ICAL %RSD acceptance criteria	</=30% RSD with 2 compounds allowed out to < 40% RSD	Project specific; default criteria is </=30% RSD with 10% of compounds allowed out to < 40% RSD
Daily Calibration	+- 30% Difference	Project specific; default criteria is </= 30% Difference with 10% of compounds allowed out up to </=40%.; flag and narrate outliers
Blank and standards	Zero air	Nitrogen
Method Detection Limit	Follow 40CFR Pt 136 App. B	The MDL met all relevant requirements in Method TO-15 (statistical MDL less than the LOQ). The concentration of the spiked replicate may have exceeded 10X the calculated MDL in some cases

Receiving Notes

The Chain of Custody (COC) information for samples SV-5 Cerro and SV-6 Cerro did not match the entries on the sample tags with regard to sample identification. The discrepancy was noted in the Sample Receipt Confirmation email/fax and the information on the COC was used to process and report the samples.

Analytical Notes

There were no analytical discrepancies.

Definition of Data Qualifying Flags

Eight qualifiers may have been used on the data analysis sheets and indicates as follows:

B - Compound present in laboratory blank greater than reporting limit (background subtraction not performed).

J - Estimated value.

E - Exceeds instrument calibration range.

S - Saturated peak.

Q - Exceeds quality control limits.

U - Compound analyzed for but not detected above the reporting limit.

UJ- Non-detected compound associated with low bias in the CCV
N - The identification is based on presumptive evidence.

File extensions may have been used on the data analysis sheets and indicates as follows:
a-File was requantified
b-File was quantified by a second column and detector
r1-File was requantified for the purpose of reissue

Air Toxics LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Summary of Detected Compounds
MODIFIED EPA METHOD TO-15 GC/MS SIM

Client Sample ID: SV-5 Cerro

Lab ID#: 0612129-01A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Trichloroethene	0.031	20	0.17	110

Client Sample ID: SV-6 Cerro

Lab ID#: 0612129-02A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Trichloroethene	0.029	22	0.15	120

Air Toxics LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: SV-5 Cerro

Lab ID#: 0612129-01A

MODIFIED EPA METHOD TO-15 GC/MS SIM

File Name:	**6121507**	**Date of Collection: 12/5/06**	
Dil. Factor:	**1.55**	**Date of Analysis: 12/15/06 05:28 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Trichloroethene	0.031	20	0.17	110
1,2-Dichloroethane	0.031	Not Detected	0.12	Not Detected
1,2-Dibromoethane (EDB)	0.031	Not Detected	0.24	Not Detected
1,1,2,2-Tetrachloroethane	0.031	Not Detected	0.21	Not Detected

Container Type: 6 Liter Summa Special (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	104	70-130
Toluene-d8	103	70-130
4-Bromofluorobenzene	111	70-130

Air Toxics LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: SV-6 Cerro

Lab ID#: 0612129-02A

MODIFIED EPA METHOD TO-15 GC/MS SIM

File Name:	**6121508**	**Date of Collection: 12/5/06**	
Dil. Factor:	**1.44**	**Date of Analysis: 12/15/06 06:09 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Trichloroethene	0.029	22	0.15	120
1,2-Dichloroethane	0.029	Not Detected	0.12	Not Detected
1,2-Dibromoethane (EDB)	0.029	Not Detected	0.22	Not Detected
1,1,2,2-Tetrachloroethane	0.029	Not Detected	0.20	Not Detected

Container Type: 6 Liter Summa Special (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	105	70-130
Toluene-d8	102	70-130
4-Bromofluorobenzene	113	70-130

Air Toxics LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: Lab Blank

Lab ID#: 0612129-03A

MODIFIED EPA METHOD TO-15 GC/MS SIM

File Name:	**6121506**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 12/15/06 04:36 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Trichloroethene	0.020	Not Detected	0.11	Not Detected
1,2-Dichloroethane	0.020	Not Detected	0.081	Not Detected
1,2-Dibromoethane (EDB)	0.020	Not Detected	0.15	Not Detected
1,1,2,2-Tetrachloroethane	0.020	Not Detected	0.14	Not Detected

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	101	70-130
Toluene-d8	103	70-130
4-Bromofluorobenzene	106	70-130

Air Toxics LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: CCV

Lab ID#: 0612129-04A

MODIFIED EPA METHOD TO-15 GC/MS SIM

File Name:	**6121502**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 12/15/06 10:59 AM**	

Compound	%Recovery
Trichloroethene	111
1,2-Dichloroethane	115
1,2-Dibromoethane (EDB)	121
1,1,2,2-Tetrachloroethane	115

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	93	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	101	70-130

Air Toxics LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: LCS

Lab ID#: 0612129-05A

MODIFIED EPA METHOD TO-15 GC/MS SIM

File Name:	**6121503**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 12/15/06 11:43 AM**	

Compound	%Recovery
Trichloroethene	94
1,2-Dichloroethane	100
1,2-Dibromoethane (EDB)	107
1,1,2,2-Tetrachloroethane	105

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	93	70-130
Toluene-d8	103	70-130
4-Bromofluorobenzene	102	70-130

QA LEVEL II - ORGANIC DATA EVALUATION CHECKLIST

Company Name: Golder Associates
Project Name: Solvita Soil Vapor Sampling Event
Reviewer: JWhite

Project Manager: M. Haddock
Project Number: 043-9670
Validation Date: 1/12/07

Laboratory: Air Toxics LTD
Analytical Method (type and no): TO-15 Sim (modified)
Matrix: ☒ Air ☐ Soil/Sed ☐ Water ☐ Waste ☐
Sample Names SV-7, Duplicate

SDG #: 061267

NOTE: Please provide calculation in Comment areas or on the back (if on the back please indicate in comment areas).

Field Information	YES	NO	NA	COMMENTS
a) Sampling dates noted?	☑	☐	☐	
b) Sampling team indicated?	☑	☐	☐	
c) Sample location noted?	☑	☐	☐	
d) Sample depth indicated ~~(Soil)~~ Air	☑	☐	☐	
e) Sample type indicated (grab/composite)?	☑	☐	☐	
f) Field QC noted?	☐	☐	☑	
g) Field parameters collected (note types)?	☑	☐	☐	PID
h) Field Calibration within control limits?	☑	☐	☐	
i) Notations of unacceptable field conditions/performances from field logs or field notes?	☐	☑	☐	
j) Does the laboratory narrative indicate deficiencies?	☐	☑	☐	

Note Deficiencies

Chain-of-Custody (COC)	YES	NO	NA	COMMENTS
a) Was the COC properly completed?	☑	☐	☐	
b) Was the COC signed by both field and laboratory personnel?	☑	☐	☐	
c) Were samples received in good condition?	☑	☐	☐	

General (reference QAPP or Method)	YES	NO	NA	COMMENTS
a) Were hold times met for sample pretreatment?	☑	☐	☐	HT=14 D
b) Were hold times met for sample analysis?	☑	☐	☐	
c) Were the correct preservatives used?	☐	☐	☑	
d) Was the correct method used?	☑	☐	☐	
e) Were appropriate reporting limits achieved?	☑	☐	☐	
f) Were any sample dilutions noted?	☐	☑	☐	
g) Were any matrix problems noted?	☐	☑	☐	

QA LEVEL II - ORGANIC DATA EVALUATION CHECKLIST

Blanks	***YES***	***NO***	***NA***	***COMMENTS***
a) Were analytes detected in the method blank(s)?	☐	☑	☐	
b) Were analytes detected in the field blank(s)?	☐	☐	☑	
c) Were analytes detected in the equipment blank(s)?	☐	☑	☐	
d) Were analytes detected in the trip blank(s)?	☐	☐	☑	

Laboratory Control Sample (LCS)	***YES***	***NO***	***NA***	***COMMENTS***
a) Was a LCS analyzed once per SDG?	☑	☐	☐	
b) Were the proper compounds included in the LCS?	☑	☐	☐	
c) Was the LCS accuracy criteria met?	☑	☐	☐	

Duplicates	***YES***	***NO***	***NA***	***COMMENTS***
a) Were field duplicates collected (note original and duplicate sample names)?	☑	☐	☐	
b) Were field dup. precision criteria met (note RPD)?	☑	☐	☐	< 6% RPD
c) Were lab duplicates analyzed (note original and duplicate samples)?	☐	☑	☐	
d) Were lab dup. precision criteria met (note RPD)?	☐	☐	☑	

Blind Standards	***YES***	***NO***	***NA***	***COMMENTS***
a) Was a blind standard used (indicate name, compounds included and concentrations)?	☐	☐	☑	
b) Was the %D within control limits?	☐	☐	☑	

Matrix Spike/Matrix Spike Duplicate (MS/MSD)	***YES***	***NO***	***NA***	***COMMENTS***
a) Was MS accuracy criteria met?	☐	☐	☑	
Recovery could not be calculated since sample contained high concentration of analyte?	☐	☐	☑	
b) Was MSD accuracy criteria met?	☐	☐	☑	
Recovery could not be calculated since sample contained high concentration of analyte?	☐	☐	☑	
c) Were MS/MSD precision criteria met?	☐	☐	☑	

Surrogate Spikes	***YES***	***NO***	***NA***	***COMMENTS***
a) Were surrogate recoveries within control limits?	☑	☐	☐	
b) Were surrogate recoveries not calculated due to dilutions?	☐	☐	☑	

Comments/Notes:

QA LEVEL II - ORGANIC DATA EVALUATION CHECKLIST

Data Qualification:

Sample Name	Constituent(s)	Result	Qualifier	Reason
NO Qualifiers				

Signature: _____ Date: 1/12/07

Air Toxics LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

WORK ORDER #: 0612167

Work Order Summary

CLIENT:	Mr. Mark Haddock Golder Associates, Inc 820 South Main Street Suite 100 St. Charles, MO 63301	**BILL TO:**	Mr. Mark Haddock Golder Associates, Inc. 820 South Main Street Suite 100 St. Charles, MO 63301
PHONE:	(636)-724-9191	**P.O. #**	043-9670
FAX:	(636-724-9323	**PROJECT #**	043-9670 Solutia Soil Vapor Sampling Event
DATE RECEIVED:	12/07/2006	**CONTACT:**	Brandon Dunmore
DATE COMPLETED:	12/27/2006		

FRACTION #	NAME	TEST	RECEIPT VAC./PRES.
01A	SV-7 Cerro	Modified TO-15 SIM	4.5 "Hg
02A	Duplicate	Modified TO-15 SIM	5.0 "Hg
03A	Lab Blank	Modified TO-15 SIM	NA
04A	CCV	Modified TO-15 SIM	NA
05A	LCS	Modified TO-15 SIM	NA

CERTIFIED BY: _____ DATE: 12/27/06

Laboratory Director

Certfication numbers: CA NELAP - 02110CA, LA NELAP/LELAP- AI 30763, NJ NELAP - CA004
NY NELAP - 11291, UT NELAP - 9166389892
Name of Accrediting Agency: NELAP/Florida Department of Health, Scope of Application: Clean Air Act,
Accreditation number: E87680, Effective date: 07/01/06, Expiration date: 06/30/07
Air Toxics Ltd certifies that the test results contained in this report meet all requirements of the NELAC standards

180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 95630
(916) 985-1000 (800) 985-5955 FAX (916) 985-1020

LABORATORY NARRATIVE
Modified TO-15 SIM
Golder Associates, Inc.
Workorder# 0612167

Two 6 Liter Summa Special (100% Certified) samples were received on December 07, 2006. The laboratory performed analysis via modified EPA Method TO-15 using GC/MS in the SIM acquisition mode. The method involves concentrating up to 0.5 liters of air. The concentrated aliquot is then flash vaporized and swept through a water management system to remove water vapor. Following dehumidification, the sample passes directly into the GC/MS for analysis.

Method modifications taken to run these samples are summarized in the below table. Specific project requirements may over-ride the ATL modifications.

Requirement	*TO-15*	*ATL Modifications*
ICAL %RSD acceptance criteria	</=30% RSD with 2 compounds allowed out to < 40% RSD	Project specific; default criteria is </=30% RSD with 10% of compounds allowed out to < 40% RSD
Daily Calibration	+- 30% Difference	Project specific; default criteria is </= 30% Difference with 10% of compounds allowed out up to </=40% ; flag and narrate outliers
Blank and standards	Zero air	Nitrogen
Method Detection Limit	Follow 40CFR Pt.136 App. B	The MDL met all relevant requirements in Method TO-15 (statistical MDL less than the LOQ). The concentration of the spiked replicate may have exceeded 10X the calculated MDL in some cases

Receiving Notes

There were no receiving discrepancies.

Analytical Notes

There were no analytical discrepancies.

Definition of Data Qualifying Flags

Eight qualifiers may have been used on the data analysis sheets and indicates as follows:

B - Compound present in laboratory blank greater than reporting limit (background subtraction not performed).

J - Estimated value.

E - Exceeds instrument calibration range.

S - Saturated peak.

Q - Exceeds quality control limits.

U - Compound analyzed for but not detected above the reporting limit.

UJ- Non-detected compound associated with low bias in the CCV

N - The identification is based on presumptive evidence.

File extensions may have been used on the data analysis sheets and indicates as follows:

a-File was requantified

b-File was quantified by a second column and detector

r1-File was requantified for the purpose of reissue

Air Toxics LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Summary of Detected Compounds
MODIFIED EPA METHOD TO-15 GC/MS SIM

Client Sample ID: SV-7 Cerro

Lab ID#: 0612167-01A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Trichloroethene	0.032	0.90	0.17	4.8
1,1,2,2-Tetrachloroethane	0.032	0.036	0.22	0.25

Client Sample ID: Duplicate

Lab ID#: 0612167-02A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Trichloroethene	0.032	0.90	0.17	4.9
1,1,2,2-Tetrachloroethane	0.032	0.034	0.22	0.24

Air Toxics LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: SV-7 Cerro

Lab ID#: 0612167-01A

MODIFIED EPA METHOD TO-15 GC/MS SIM

File Name:	**6121510**	**Date of Collection:**	**12/6/06**
Dil. Factor:	**1.58**	**Date of Analysis:**	**12/15/06 07:54 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Trichloroethene	0.032	0.90	0.17	4.8
1,2-Dichloroethane	0.032	Not Detected	0.13	Not Detected
1,2-Dibromoethane (EDB)	0.032	Not Detected	0.24	Not Detected
1,1,2,2-Tetrachloroethane	0.032	0.036	0.22	0.25

Container Type: 6 Liter Summa Special (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	105	70-130
Toluene-d8	102	70-130
4-Bromofluorobenzene	107	70-130

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Client Sample ID: Duplicate

Lab ID#: 0612167-02A

MODIFIED EPA METHOD TO-15 GC/MS SIM

File Name:	**6121512**	**Date of Collection:**	**12/6/06**
Dil. Factor:	**1.61**	**Date of Analysis:**	**12/15/06 09:29 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Trichloroethene	0.032	0.90	0.17	4.9
1,2-Dichloroethane	0.032	Not Detected	0.13	Not Detected
1,2-Dibromoethane (EDB)	0.032	Not Detected	0.25	Not Detected
1,1,2,2-Tetrachloroethane	0.032	0.034	0.22	0.24

Container Type: 6 Liter Summa Special (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	100	70-130
Toluene-d8	102	70-130
4-Bromofluorobenzene	101	70-130

Air Toxics LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: Lab Blank

Lab ID#: 0612167-03A

MODIFIED EPA METHOD TO-15 GC/MS SIM

File Name:	**6121506**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 12/15/06 04:36 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Trichloroethene	0.020	Not Detected	0.11	Not Detected
1,2-Dichloroethane	0.020	Not Detected	0.081	Not Detected
1,2-Dibromoethane (EDB)	0.020	Not Detected	0.15	Not Detected
1,1,2,2-Tetrachloroethane	0.020	Not Detected	0.14	Not Detected

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	101	70-130
Toluene-d8	103	70-130
4-Bromofluorobenzene	106	70-130

Air Toxics LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: CCV

Lab ID#: 0612167-04A

MODIFIED EPA METHOD TO-15 GC/MS SIM

File Name:	**6121502**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 12/15/06 10:59 AM**	

Compound	%Recovery
Trichloroethene	111
1,2-Dichloroethane	115
1,2-Dibromoethane (EDB)	121
1,1,2,2-Tetrachloroethane	115

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	93	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	101	70-130

Air Toxics LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: LCS

Lab ID#: 0612167-05A

MODIFIED EPA METHOD TO-15 GC/MS SIM

File Name:	**6121503**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 12/15/06 11:43 AM**	

Compound	%Recovery
Trichloroethene	94
1,2-Dichloroethane	100
1,2-Dibromoethane (EDB)	107
1,1,2,2-Tetrachloroethane	105

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	93	70-130
Toluene-d8	103	70-130
4-Bromofluorobenzene	102	70-130

QA LEVEL II - ORGANIC DATA EVALUATION CHECKLIST

Company Name: Golder Associates
Project Name: Solutia Soil Vapor Sampling Event
Reviewer: S. White

Project Manager: M. Haddock
Project Number: 043-9670
Validation Date: 1/12/07

Laboratory: Air Toxics LTD.
SDG #: 0612167B
Analytical Method (type and no): TO-15 (Modified) Full Scan
Matrix: ☒ Air ☐ Soil/Sed ☐ Water ☐ Waste ☐
Sample Names: SV-7, Duplicate

NOTE: Please provide calculation in Comment areas or on the back (if on the back please indicate in comment areas).

Field Information	***YES***	***NO***	***NA***	***COMMENTS***
a) Sampling dates noted?	☑	☐	☐	
b) Sampling team indicated?	☑	☐	☐	
c) Sample location noted?	☑	☐	☐	
d) Sample depth indicated (~~Soils~~)? Air	☑	☐	☐	
e) Sample type indicated (grab/composite)?	☑	☐	☐	
f) Field QC noted?	☐	☐	☑	
g) Field parameters collected (note types)?	☑	☐	☐	PID
h) Field Calibration within control limits?	☑	☐	☐	
i) Notations of unacceptable field conditions/performances from field logs or field notes?	☐	☑	☐	
j) Does the laboratory narrative indicate deficiencies?	☐	☑	☐	

Note Deficiencies:

Chain-of-Custody (COC)	***YES***	***NO***	***NA***	***COMMENTS***
a) Was the COC properly completed?	☑	☐	☐	
b) Was the COC signed by both field and laboratory personnel?	☑	☐	☐	
c) Were samples received in good condition?	☑	☐	☐	

General (reference QAPP or Method)	***YES***	***NO***	***NA***	***COMMENTS***
a) Were hold times met for sample pretreatment?	☑	☐	☐	
b) Were hold times met for sample analysis?	☑	☐	☐	
c) Were the correct preservatives used?	☐	☐	☑	
d) Was the correct method used?	☑	☐	☐	
e) Were appropriate reporting limits achieved?	☑	☐	☐	
f) Were any sample dilutions noted?	☐	☑	☐	
g) Were any matrix problems noted?	☐	☑	☐	

QA LEVEL II - ORGANIC DATA EVALUATION CHECKLIST

Blanks	YES	NO	NA	COMMENTS
a) Were analytes detected in the method blank(s)?	☐	☑	☐	
b) Were analytes detected in the field blank(s)?	☐	☐	☑	
c) Were analytes detected in the equipment blank(s)?	☑	☐	☐	
d) Were analytes detected in the trip blank(s)?	☐	☐	☑	

Laboratory Control Sample (LCS)	YES	NO	NA	COMMENTS
a) Was a LCS analyzed once per SDG?	☑	☐	☐	
b) Were the proper compounds included in the LCS?	☑	☐	☐	
c) Was the LCS accuracy criteria met?	☐	☑	☐	Cis-1,3-Dichloropropene, Styrene, 1,2,4-Trimethylbenzene outside QC Limits

Duplicates	YES	NO	NA	COMMENTS
a) Were field duplicates collected (note original and duplicate sample names)?	☑	☐	☐	
b) Were field dup. precision criteria met (note RPD)?	☐	☑	☐	Chloromethane + Carbon Disulfide detected in SV-7, not Dup.
c) Were lab duplicates analyzed (note original and duplicate samples)?	☐	☑	☐	all others < 30%
d) Were lab dup. precision criteria met (note RPD)?	☐	☐	☑	

Blind Standards	YES	NO	NA	COMMENTS
a) Was a blind standard used (indicate name, compounds included and concentrations)?	☐	☐	☑	
b) Was the %D within control limits?	☐	☐	☑	

Matrix Spike/Matrix Spike Duplicate (MS/MSD)	YES	NO	NA	COMMENTS
a) Was MS accuracy criteria met?	☐	☐	☑	
Recovery could not be calculated since sample contained high concentration of analyte?	☐	☐	☑	
b) Was MSD accuracy criteria met?	☐	☐	☑	
Recovery could not be calculated since sample contained high concentration of analyte?	☐	☐	☑	
c) Were MS/MSD precision criteria met?	☐	☐	☑	

Surrogate Spikes	YES	NO	NA	COMMENTS
a) Were surrogate recoveries within control limits?	☑	☐	☐	
b) Were surrogate recoveries not calculated due to dilutions?	☐	☐	☑	

Comments/Notes:

QA LEVEL II - ORGANIC DATA EVALUATION CHECKLIST

Data Qualification:

Sample Name	Constituent(s)	Result	Qualifier	Reason
SV-7	Freon 11		J	Detection in Equip Blank
	Ethanol		↓	↓
	Acetone			
	Carbon Disulfide			
	2-Butanone			
	Benzene			
	Toluene			
	Ethyl Benzene			
	m,p-Xylene			
	o-Xylene			
	1,2,4-trimethylbenzene			

Signature: _____ Date: 1/12/07

Air Toxics LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

WORK ORDER #: 0612167B

Work Order Summary

CLIENT:	Mr. Mark Haddock Golder Associates, Inc. 820 South Main Street Suite 100 St. Charles, MO 63301	**BILL TO:**	Mr. Mark Haddock Golder Associates, Inc. 820 South Main Street Suite 100 St. Charles, MO 63301
PHONE:	(636)-724-9191	**P.O. #**	043-9670
FAX:	(636-724-9323	**PROJECT #**	043-9670 Solutia Soil Vapor Sampling Event
DATE RECEIVED:	12/07/2006	**CONTACT:**	Brandon Dunmore
DATE COMPLETED:	12/27/2006		

FRACTION #	NAME	TEST	RECEIPT VAC./PRES.
01A	SV-7 Cerro	Modified TO-15	4 5 "Hg
02A	Duplicate	Modified TO-15	5.0 "Hg
03A	Lab Blank	Modified TO-15	NA
04A	CCV	Modified TO-15	NA
05A	LCS	Modified TO-15	NA

CERTIFIED BY: _____ DATE: 12/27/06

Laboratory Director

Certfication numbers: CA NELAP - 02110CA, LA NELAP/LELAP- AI 30763, NJ NELAP - CA004
NY NELAP - 11291, UT NELAP - 9166389892
Name of Accrediting Agency: NELAP/Florida Department of Health, Scope of Application: Clean Air Act,
Accreditation number: E87680, Effective date: 07/01/06, Expiration date: 06/30/07
Air Toxics Ltd. certifies that the test results contained in this report meet all requirements of the NELAC standards

180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 95630
(916) 985-1000 (800) 985-5955 FAX (916) 985-1020

LABORATORY NARRATIVE
Modified TO-15
Golder Associates, Inc.
Workorder# 0612167B

Two 6 Liter Summa Special (100% Certified) samples were received on December 07, 2006. The laboratory performed analysis via modified EPA Method TO-15 using GC/MS in the full scan mode. The method involves concentrating up to 1.0 liter of air. The concentrated aliquot is then flash vaporized and swept through a water management system to remove water vapor. Following dehumidification, the sample passes directly into the GC/MS for analysis.

Method modifications taken to run these samples are summarized in the below table. Specific project requirements may over-ride the ATL modifications.

Requirement	*TO-15*	*ATL Modifications*
ICAL %RSD acceptance criteria	+- 30% RSD with 2 compounds allowed out to < 40% RSD	30% RSD with 4 compounds allowed out to < 40% RSD
Daily Calibration	+- 30% Difference	</= 30% Difference with four allowed out up to </=40% ; flag and narrate outliers
Blank and standards	Zero air	Nitrogen
Method Detection Limit	Follow 40CFR Pt.136 App. B	The MDL met all relevant requirements in Method TO-15 (statistical MDL less than the LOQ) The concentration of the spiked replicate may have exceeded 10X the calculated MDL in some cases
Sample collection media	Summa canister	ATL recommends use of summa canisters to insure data defensibility, but will report results from Tedlar bags at client request

Receiving Notes

There were no receiving discrepancies.

Analytical Notes

The reported CCV for each daily batch may be derived from more than one analytical file due to the client's request for non-standard compounds.

Non-standard compounds may have different acceptance criteria than the standard TO-14A/TO-15 compound list as per contract or verbal agreement.

The reported LCS for each daily batch has been derived from more than one analytical file.

Definition of Data Qualifying Flags

Eight qualifiers may have been used on the data analysis sheets and indicates as follows:

B - Compound present in laboratory blank greater than reporting limit (background subtraction not performed).

J - Estimated value.
E - Exceeds instrument calibration range.
S - Saturated peak.
Q - Exceeds quality control limits.
U - Compound analyzed for but not detected above the reporting limit.
UJ- Non-detected compound associated with low bias in the CCV
N - The identification is based on presumptive evidence.

File extensions may have been used on the data analysis sheets and indicates as follows:
a-File was requantified
b-File was quantified by a second column and detector
r1-File was requantified for the purpose of reissue

Air Toxics LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Summary of Detected Compounds
MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

Client Sample ID: SV-7 Cerro

Lab ID#: 0612167B-01A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Freon 12	0.16	0.56	0.78	2.8
Chloromethane	0.16	0.18	0.33	0.37
Freon 11	0.16	0.26 J	0.89	1.5
Ethanol	0.79	1.7 J	1.5	3.2
Acetone	0.79	12 J	1.9	30
Carbon Disulfide	0.79	1.1 J	2.5	3.6
Hexane	0.16	2.5	0.56	8.9
2-Butanone (Methyl Ethyl Ketone)	0.16	0.81 J	0.46	2.4
Cyclohexane	0.16	1.5	0.54	5.2
Benzene	0.16	0.65 J	0.50	2.1
Heptane	0.16	1.2	0.65	5.1
Toluene	0.16	1.0 J	0.60	4.0
Ethyl Benzene	0.16	0.38 J	0.69	1.6
m,p-Xylene	0.16	0.51 J	0.69	2.2
o-Xylene	0.16	0.18 J	0.69	0.78
1,3,5-Trimethylbenzene	0.16	0.17	0.78	0.83
1,2,4-Trimethylbenzene	0.16	0.26 J	0.78	1.3
Butylbenzene	0.79	0.99 J	4.3	5.4
Ethyl Acetate	0.79	10 J	2.8	37

Client Sample ID: Duplicate

Lab ID#: 0612167B-02A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Freon 12	0.16	0.60	0.80	3.0
Freon 11	0.16	0.24 J	0.90	1.3
Ethanol	0.80	1.8 J	1.5	3.3
Acetone	0.80	12 J	1.9	29
Hexane	0.16	2.6	0.57	9.1
2-Butanone (Methyl Ethyl Ketone)	0.16	0.74 J	0.47	2.2
Cyclohexane	0.16	1.5	0.55	5.0
Benzene	0.16	0.54 J	0.51	1.7
Heptane	0.16	1.2	0.66	4.8
Toluene	0.16	1.1 J	0.61	4.2
Ethyl Benzene	0.16	0.32 J	0.70	1.4
m,p-Xylene	0.16	0.53 J	0.70	2.3
o-Xylene	0.16	0.15 J J	0.70	0.67 J

Air Toxics LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Summary of Detected Compounds
MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

Client Sample ID: Duplicate

Lab ID#: 0612167B-02A

1,3,5-Trimethylbenzene	0.16	0.19	0.79	0.94
1,2,4-Trimethylbenzene	0.16	0.22 J	0.79	1.1
Butylbenzene	0.80	1.1	4.4	6.2
Ethyl Acetate	0.80	9.3	2.9	33

Air Toxics LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: SV-7 Cerro

Lab ID#: 0612167B-01A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	g121425	Date of Collection:	12/6/06
Dil. Factor:	1.58	Date of Analysis:	12/15/06 01:32 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Freon 12	0 16	0 56	0.78	2 8
Freon 114	0 16	Not Detected	1.1	Not Detected
Chloromethane	0 16	0 18	0 33	0 37
Vinyl Chloride	0 16	Not Detected	0 40	Not Detected
1,3-Butadiene	0.16	Not Detected	0.35	Not Detected
Bromomethane	0 16	Not Detected	0 61	Not Detected
Chloroethane	0 16	Not Detected	0 42	Not Detected
Freon 11	0 16	0 26	0 89	1 5
Ethanol	0 79	1 7	1 5	3 2
Freon 113	0.16	Not Detected	1.2	Not Detected
1,1-Dichloroethene	0 16	Not Detected	0.63	Not Detected
Acetone	0 79	12	1 9	30
2-Propanol	0 79	Not Detected	1 9	Not Detected
Carbon Disulfide	0 79	1 1	2 5	3 6
Methylene Chloride	0.32	Not Detected	1.1	Not Detected
Methyl tert-butyl ether	0 16	Not Detected	0 57	Not Detected
trans-1,2-Dichloroethene	0 16	Not Detected	0 63	Not Detected
Hexane	0 16	2 5	0 56	8 9
1,1-Dichloroethane	0 16	Not Detected	0 64	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.16	0.81	0.46	2.4
cis-1,2-Dichloroethene	0 16	Not Detected	0 63	Not Detected
Tetrahydrofuran	0 79	Not Detected	2 3	Not Detected
Chloroform	0 16	Not Detected	0 77	Not Detected
1,1,1-Trichloroethane	0 16	Not Detected	0 86	Not Detected
Cyclohexane	0.16	1.5	0.54	5.2
Carbon Tetrachloride	0 16	Not Detected	0 99	Not Detected
Benzene	0 16	0 65	0 50	2 1
Heptane	0 16	1 2	0 65	5 1
1,2-Dichloropropane	0 16	Not Detected	0 73	Not Detected
1,4-Dioxane	0.16	Not Detected	0.57	Not Detected
Bromodichloromethane	0 16	Not Detected	1 0	Not Detected
cis-1,3-Dichloropropene	0 16	Not Detected	0 72	Not Detected
4-Methyl-2-pentanone	0 16	Not Detected	0 65	Not Detected
Toluene	0 16	1 0	0 60	4 0
trans-1,3-Dichloropropene	0.16	Not Detected	0.72	Not Detected
1,1,2-Trichloroethane	0 16	Not Detected	0 86	Not Detected
Tetrachloroethene	0 16	Not Detected	1 1	Not Detected
2-Hexanone	0 79	Not Detected	3 2	Not Detected
Dibromochloromethane	0 16	Not Detected	1 3	Not Detected

Air Toxics LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: SV-7 Cerro

Lab ID#: 0612167B-01A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	g121425	Date of Collection:	12/6/06
Dil. Factor:	1.58	Date of Analysis:	12/15/06 01:32 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Chlorobenzene	0 16	Not Detected	0 73	Not Detected
Ethyl Benzene	0 16	0 38	0 69	1 6
m,p-Xylene	0 16	0 51	0 69	2 2
o-Xylene	0 16	0 18	0 69	0 78
Styrene	0.16	Not Detected	0.67	Not Detected
Bromoform	0 16	Not Detected	1.6	Not Detected
Cumene	0 16	Not Detected	0 78	Not Detected
Propylbenzene	0 16	Not Detected	0 78	Not Detected
4-Ethyltoluene	0 16	Not Detected	0.78	Not Detected
1,3,5-Trimethylbenzene	0.16	0.17	0.78	0.83
1,2,4-Trimethylbenzene	0.16	0.26	0 78	1 3
1,3-Dichlorobenzene	0 16	Not Detected	0 95	Not Detected
1,4-Dichlorobenzene	0.16	Not Detected	0 95	Not Detected
alpha-Chlorotoluene	0.16	Not Detected	0 82	Not Detected
1,2-Dichlorobenzene	0.16	Not Detected	0.95	Not Detected
1,2,4-Trichlorobenzene	0.79	Not Detected	5.9	Not Detected
Hexachlorobutadiene	0.79	Not Detected	8.4	Not Detected
Naphthalene	0 79	Not Detected	4 1	Not Detected
1,1,1,2-Tetrachloroethane	0.79	Not Detected	5.4	Not Detected
1,2,3-Trichloropropane	0.79	Not Detected	4.8	Not Detected
Acetonitrile	0.79	Not Detected	1 3	Not Detected
Butylbenzene	0 79	0 99	4 3	5.4
Dibromomethane	0 79	Not Detected	5 6	Not Detected
Ethyl Acetate	0 79	10	2 8	37
sec-Butylbenzene	0.79	Not Detected	4.3	Not Detected
Vinyl Acetate	3 2	Not Detected	11	Not Detected

Container Type: 6 Liter Summa Special (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	102	70-130
Toluene-d8	94	70-130
4-Bromofluorobenzene	95	70-130

Air Toxics LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: Duplicate

Lab ID#: 0612167B-02A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	g121426	Date of Collection:	12/6/06
Dil. Factor:	1.61	Date of Analysis:	12/15/06 02:25 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Freon 12	0 16	0 60	0 80	3 0
Freon 114	0.16	Not Detected	1.1	Not Detected
Chloromethane	0.16	Not Detected	0 33	Not Detected
Vinyl Chloride	0.16	Not Detected	0 41	Not Detected
1,3-Butadiene	0.16	Not Detected	0.36	Not Detected
Bromomethane	0.16	Not Detected	0 62	Not Detected
Chloroethane	0 16	Not Detected	0 42	Not Detected
Freon 11	0 16	0 24	0 90	1 3
Ethanol	0 80	1 8	1 5	3 3
Freon 113	0.16	Not Detected	1.2	Not Detected
1,1-Dichloroethene	0 16	Not Detected	0 64	Not Detected
Acetone	0 80	12	1 9	29
2-Propanol	0 80	Not Detected	2 0	Not Detected
Carbon Disulfide	0 80	Not Detected	2 5	Not Detected
Methylene Chloride	0.32	Not Detected	1.1	Not Detected
Methyl tert-butyl ether	0 16	Not Detected	0 58	Not Detected
trans-1,2-Dichloroethene	0.16	Not Detected	0 64	Not Detected
Hexane	0.16	2 6	0 57	9 1
1,1-Dichloroethane	0.16	Not Detected	0 65	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.16	0.74	0.47	2.2
cis-1,2-Dichloroethene	0 16	Not Detected	0 64	Not Detected
Tetrahydrofuran	0 80	Not Detected	2 4	Not Detected
Chloroform	0 16	Not Detected	0 79	Not Detected
1,1,1-Trichloroethane	0 16	Not Detected	0 88	Not Detected
Cyclohexane	0.16	1.5	0.55	5.0
Carbon Tetrachloride	0 16	Not Detected	1 0	Not Detected
Benzene	0.16	0.54	0.51	1 7
Heptane	0 16	1 2	0 66	4 8
1,2-Dichloropropane	0 16	Not Detected	0 74	Not Detected
1,4-Dioxane	0 16	Not Detected	0 58	Not Detected
Bromodichloromethane	0 16	Not Detected	1 1	Not Detected
cis-1,3-Dichloropropene	0 16	Not Detected	0 73	Not Detected
4-Methyl-2-pentanone	0 16	Not Detected	0 66	Not Detected
Toluene	0 16	1 1	0 61	4 2
trans-1,3-Dichloropropene	0.16	Not Detected	0.73	Not Detected
1,1,2-Trichloroethane	0 16	Not Detected	0 88	Not Detected
Tetrachloroethene	0 16	Not Detected	1 1	Not Detected
2-Hexanone	0 80	Not Detected	3 3	Not Detected
Dibromochloromethane	0 16	Not Detected	1 4	Not Detected

Air Toxics LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: Duplicate

Lab ID#: 0612167B-02A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	g121426	Date of Collection:	12/6/06
Dil. Factor:	1.61	Date of Analysis:	12/15/06 02:25 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Chlorobenzene	0 16	Not Detected	0 74	Not Detected
Ethyl Benzene	0.16	0.32	0 70	1 4
m,p-Xylene	0.16	0.53	0.70	2 3
o-Xylene	0.16	0 15 J	0 70	0 67 J
Styrene	0.16	Not Detected	0.68	Not Detected
Bromoform	0 16	Not Detected	1 7	Not Detected
Cumene	0 16	Not Detected	0 79	Not Detected
Propylbenzene	0 16	Not Detected	0 79	Not Detected
4-Ethyltoluene	0 16	Not Detected	0.79	Not Detected
1,3,5-Trimethylbenzene	0.16	0.19	0.79	0.94
1,2,4-Trimethylbenzene	0 16	0.22	0.79	1 1
1,3-Dichlorobenzene	0 16	Not Detected	0 97	Not Detected
1,4-Dichlorobenzene	0 16	Not Detected	0.97	Not Detected
alpha-Chlorotoluene	0 16	Not Detected	0.83	Not Detected
1,2-Dichlorobenzene	0.16	Not Detected	0.97	Not Detected
1,2,4-Trichlorobenzene	0.80	Not Detected	6 0	Not Detected
Hexachlorobutadiene	0.80	Not Detected	8 6	Not Detected
Naphthalene	0.80	Not Detected	4 2	Not Detected
1,1,1,2-Tetrachloroethane	0.80	Not Detected	5 5	Not Detected
1,2,3-Trichloropropane	0.80	Not Detected	4.8	Not Detected
Acetonitrile	0 80	Not Detected	1 4	Not Detected
Butylbenzene	0 80	1 1	4.4	6 2
Dibromomethane	0 80	Not Detected	5.7	Not Detected
Ethyl Acetate	0 80	9 3	2 9	33
sec-Butylbenzene	0.80	Not Detected	4.4	Not Detected
Vinyl Acetate	3 2	Not Detected	11	Not Detected

J = Estimated value

Container Type: 6 Liter Summa Special (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	100	70-130
Toluene-d8	96	70-130
4-Bromofluorobenzene	95	70-130

Air Toxics LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: Lab Blank

Lab ID#: 0612167B-03A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	g121414	Date of Collection: NA	
Dil. Factor:	1.00	Date of Analysis:	12/14/06 04:12 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Freon 12	0.10	Not Detected	0.49	Not Detected
Freon 114	0.10	Not Detected	0.70	Not Detected
Chloromethane	0.10	Not Detected	0.21	Not Detected
Vinyl Chloride	0.10	Not Detected	0.26	Not Detected
1,3-Butadiene	0.10	Not Detected	0.22	Not Detected
Bromomethane	0.10	Not Detected	0.39	Not Detected
Chloroethane	0.10	Not Detected	0.26	Not Detected
Freon 11	0.10	Not Detected	0.56	Not Detected
Ethanol	0.50	Not Detected	0.94	Not Detected
Freon 113	0.10	Not Detected	0.77	Not Detected
1,1-Dichloroethene	0.10	Not Detected	0.40	Not Detected
Acetone	0.50	Not Detected	1.2	Not Detected
2-Propanol	0.50	Not Detected	1.2	Not Detected
Carbon Disulfide	0.50	Not Detected	1.6	Not Detected
Methylene Chloride	0.20	Not Detected	0.69	Not Detected
Methyl tert-butyl ether	0.10	Not Detected	0.36	Not Detected
trans-1,2-Dichloroethene	0.10	Not Detected	0.40	Not Detected
Hexane	0.10	Not Detected	0.35	Not Detected
1,1-Dichloroethane	0.10	Not Detected	0.40	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.10	Not Detected	0.29	Not Detected
cis-1,2-Dichloroethene	0.10	Not Detected	0.40	Not Detected
Tetrahydrofuran	0.50	Not Detected	1.5	Not Detected
Chloroform	0.10	Not Detected	0.49	Not Detected
1,1,1-Trichloroethane	0.10	Not Detected	0.54	Not Detected
Cyclohexane	0.10	Not Detected	0.34	Not Detected
Carbon Tetrachloride	0.10	Not Detected	0.63	Not Detected
Benzene	0.10	Not Detected	0.32	Not Detected
Heptane	0.10	Not Detected	0.41	Not Detected
1,2-Dichloropropane	0.10	Not Detected	0.46	Not Detected
1,4-Dioxane	0.10	Not Detected	0.36	Not Detected
Bromodichloromethane	0.10	Not Detected	0.67	Not Detected
cis-1,3-Dichloropropene	0.10	Not Detected	0.45	Not Detected
4-Methyl-2-pentanone	0.10	Not Detected	0.41	Not Detected
Toluene	0.10	Not Detected	0.38	Not Detected
trans-1,3-Dichloropropene	0.10	Not Detected	0.45	Not Detected
1,1,2-Trichloroethane	0.10	Not Detected	0.54	Not Detected
Tetrachloroethene	0.10	Not Detected	0.68	Not Detected
2-Hexanone	0.50	Not Detected	2.0	Not Detected
Dibromochloromethane	0.10	Not Detected	0.85	Not Detected

Air Toxics LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: Lab Blank

Lab ID#: 0612167B-03A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	g121414	Date of Collection: NA	
Dil. Factor:	1.00	Date of Analysis: 12/14/06 04:12 PM	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Chlorobenzene	0.10	Not Detected	0.46	Not Detected
Ethyl Benzene	0.10	Not Detected	0.43	Not Detected
m,p-Xylene	0.10	Not Detected	0.43	Not Detected
o-Xylene	0.10	Not Detected	0.43	Not Detected
Styrene	0.10	Not Detected	0.42	Not Detected
Bromoform	0.10	Not Detected	1.0	Not Detected
Cumene	0.10	Not Detected	0.49	Not Detected
Propylbenzene	0.10	Not Detected	0.49	Not Detected
4-Ethyltoluene	0.10	Not Detected	0.49	Not Detected
1,3,5-Trimethylbenzene	0.10	Not Detected	0.49	Not Detected
1,2,4-Trimethylbenzene	0.10	Not Detected	0.49	Not Detected
1,3-Dichlorobenzene	0.10	Not Detected	0.60	Not Detected
1,4-Dichlorobenzene	0.10	Not Detected	0.60	Not Detected
alpha-Chlorotoluene	0.10	Not Detected	0.52	Not Detected
1,2-Dichlorobenzene	0.10	Not Detected	0.60	Not Detected
1,2,4-Trichlorobenzene	0.50	Not Detected	3.7	Not Detected
Hexachlorobutadiene	0.50	Not Detected	5.3	Not Detected
Naphthalene	0.50	Not Detected	2.6	Not Detected
1,1,1,2-Tetrachloroethane	0.50	Not Detected	3.4	Not Detected
1,2,3-Trichloropropane	0.50	Not Detected	3.0	Not Detected
Acetonitrile	0.50	Not Detected	0.84	Not Detected
Butylbenzene	0.50	Not Detected	2.7	Not Detected
Dibromomethane	0.50	Not Detected	3.6	Not Detected
Ethyl Acetate	0.50	Not Detected	1.8	Not Detected
sec-Butylbenzene	0.50	Not Detected	2.7	Not Detected
Vinyl Acetate	2.0	Not Detected	7.0	Not Detected

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	103	70-130
Toluene-d8	91	70-130
4-Bromofluorobenzene	96	70-130

Air Toxics LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: CCV

Lab ID#: 0612167B-04A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	g121402	Date of Collection: NA	
Dil. Factor:	1.00	Date of Analysis: 12/14/06 08:15 AM	

Compound	%Recovery
Freon 12	112
Freon 114	109
Chloromethane	130
Vinyl Chloride	107
1,3-Butadiene	102
Bromomethane	97
Chloroethane	105
Freon 11	100
Ethanol	93
Freon 113	102
1,1-Dichloroethene	105
Acetone	105
2-Propanol	87
Carbon Disulfide	111
Methylene Chloride	103
Methyl tert-butyl ether	85
trans-1,2-Dichloroethene	97
Hexane	94
1,1-Dichloroethane	103
2-Butanone (Methyl Ethyl Ketone)	104
cis-1,2-Dichloroethene	96
Tetrahydrofuran	100
Chloroform	102
1,1,1-Trichloroethane	100
Cyclohexane	100
Carbon Tetrachloride	100
Benzene	98
Heptane	103
1,2-Dichloropropane	106
1,4-Dioxane	90
Bromodichloromethane	95
cis-1,3-Dichloropropene	91
4-Methyl-2-pentanone	96
Toluene	96
trans-1,3-Dichloropropene	104
1,1,2-Trichloroethane	108
Tetrachloroethene	99
2-Hexanone	89
Dibromochloromethane	100

Air Toxics LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: CCV

Lab ID#: 0612167B-04A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	g121402	Date of Collection: NA	
Dil. Factor:	1.00	Date of Analysis: 12/14/06 08:15 AM	

Compound	%Recovery
Chlorobenzene	103
Ethyl Benzene	102
m,p-Xylene	98
o-Xylene	92
Styrene	100
Bromoform	101
Cumene	90
Propylbenzene	94
4-Ethyltoluene	91
1,3,5-Trimethylbenzene	89
1,2,4-Trimethylbenzene	88
1,3-Dichlorobenzene	86
1,4-Dichlorobenzene	84
alpha-Chlorotoluene	93
1,2-Dichlorobenzene	81
1,2,4-Trichlorobenzene	74
Hexachlorobutadiene	78
Naphthalene	107
1,1,1,2-Tetrachloroethane	125
1,2,3-Trichloropropane	96
Acetonitrile	98
Butylbenzene	100
Dibromomethane	88
Ethyl Acetate	94
sec-Butylbenzene	102
Vinyl Acetate	98

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	97	70-130
Toluene-d8	103	70-130
4-Bromofluorobenzene	98	70-130

Air Toxics LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: LCS

Lab ID#: 0612167B-05A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	g121404	Date of Collection: NA	
Dil. Factor:	1.00	Date of Analysis: 12/14/06 09:14 AM	

Compound	%Recovery
Freon 12	110
Freon 114	105
Chloromethane	122
Vinyl Chloride	100
1,3-Butadiene	103
Bromomethane	96
Chloroethane	103
Freon 11	102
Ethanol	106
Freon 113	101
1,1-Dichloroethene	105
Acetone	106
2-Propanol	94
Carbon Disulfide	117
Methylene Chloride	108
Methyl tert-butyl ether	88
trans-1,2-Dichloroethene	100
Hexane	96
1,1-Dichloroethane	105
2-Butanone (Methyl Ethyl Ketone)	110
cis-1,2-Dichloroethene	100
Tetrahydrofuran	102
Chloroform	101
1,1,1-Trichloroethane	102
Cyclohexane	102
Carbon Tetrachloride	99
Benzene	100
Heptane	102
1,2-Dichloropropane	107
1,4-Dioxane	93
Bromodichloromethane	92
cis-1,3-Dichloropropene	59 Q
4-Methyl-2-pentanone	97
Toluene	98
trans-1,3-Dichloropropene	115
1,1,2-Trichloroethane	112
Tetrachloroethene	106
2-Hexanone	91
Dibromochloromethane	99

Air Toxics LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: LCS

Lab ID#: 0612167B-05A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	g121404	Date of Collection: NA	
Dil. Factor:	1.00	Date of Analysis: 12/14/06 09:14 AM	

Compound	%Recovery
Chlorobenzene	109
Ethyl Benzene	119
m,p-Xylene	100
o-Xylene	87
Styrene	69 Q
Bromoform	86
Cumene	92
Propylbenzene	98
4-Ethyltoluene	98
1,3,5-Trimethylbenzene	84
1,2,4-Trimethylbenzene	66 Q
1,3-Dichlorobenzene	101
1,4-Dichlorobenzene	99
alpha-Chlorotoluene	110
1,2-Dichlorobenzene	97
1,2,4-Trichlorobenzene	75
Hexachlorobutadiene	80
Naphthalene	98
1,1,1,2-Tetrachloroethane	Not Spiked
1,2,3-Trichloropropane	Not Spiked
Acetonitrile	Not Spiked
Butylbenzene	Not Spiked
Dibromomethane	Not Spiked
Ethyl Acetate	Not Spiked
sec-Butylbenzene	Not Spiked
Vinyl Acetate	104

Q = Exceeds Quality Control limits

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	97	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	97	70-130

QA LEVEL II - ORGANIC DATA EVALUATION CHECKLIST

Company Name: Golder Associates
Project Name: Solvay Soil/Vapor Sampling Event
Reviewer: J. White

Project Manager: M. Haddock
Project Number: 043-9670
Validation Date: 1/12/07

Laboratory: AirToxics LTD.
SDG #: 0612239
Analytical Method (type and no.): TO-15 Modified SIM
Matrix: [X] Air [ ] Soil/Sed [ ] Water [ ] Waste [ ]
Sample Names: SV-8, SV-9, SV-10

NOTE: Please provide calculation in Comment areas or on the back (if on the back please indicate in comment areas).

Field Information	*YES*	*NO*	*NA*	*COMMENTS*
a) Sampling dates noted?	☑	☐	☐	
b) Sampling team indicated?	☑	☐	☐	
c) Sample location noted?	☑	☐	☐	
d) Sample depth indicated (~~Soils~~)? Air	☑	☐	☐	
e) Sample type indicated (grab/~~composite~~)?	☑	☐	☐	
f) Field QC noted?	☐	☐	☑	
g) Field parameters collected (note types)?	☑	☐	☐	PID
h) Field Calibration within control limits?	☑	☐	☐	
i) Notations of unacceptable field conditions/performances from field logs or field notes?	☐	☑	☐	
j) Does the laboratory narrative indicate deficiencies?	☐	☑	☐	

Note Deficiencies:

Chain-of-Custody (COC)	*YES*	*NO*	*NA*	*COMMENTS*
a) Was the COC properly completed?	☑	☐	☐	
b) Was the COC signed by both field and laboratory personnel?	☑	☐	☐	
c) Were samples received in good condition?	☑	☐	☐	

General (reference QAPP or Method)	*YES*	*NO*	*NA*	*COMMENTS*
a) Were hold times met for sample pretreatment?	☑	☐	☐	
b) Were hold times met for sample analysis?	☑	☐	☐	
c) Were the correct preservatives used?	☐	☐	☑	
d) Was the correct method used?	☑	☐	☐	
e) Were appropriate reporting limits achieved?	☐	☐	☐	
f) Were any sample dilutions noted?	☑	☐	☐	SV-8 diluted due to presence
g) Were any matrix problems noted?	☐	☑	☐	of high-level non-target species.

QA LEVEL II - ORGANIC DATA EVALUATION CHECKLIST

Blanks	***YES***	***NO***	***NA***	***COMMENTS***
a) Were analytes detected in the method blank(s)?	☐	☑	☐	
b) Were analytes detected in the field blank(s)?	☐	☐	☑	
c) Were analytes detected in the equipment blank(s)?	☐	☑	☐	
d) Were analytes detected in the trip blank(s)?	☐	☐	☑	

Laboratory Control Sample (LCS)	***YES***	***NO***	***NA***	***COMMENTS***
a) Was a LCS analyzed once per SDG?	☑	☐	☐	
b) Were the proper compounds included in the LCS?	☑	☐	☐	
c) Was the LCS accuracy criteria met?	☑	☐	☐	

Duplicates	***YES***	***NO***	***NA***	***COMMENTS***
a) Were field duplicates collected (note original and duplicate sample names)?	☐	☑	☐	
b) Were field dup. precision criteria met (note RPD)?	☐	☐	☑	
c) Were lab duplicates analyzed (note original and duplicate samples)?	☐	☑	☐	
d) Were lab dup. precision criteria met (note RPD)?	☐	☐	☑	

Blind Standards	***YES***	***NO***	***NA***	***COMMENTS***
a) Was a blind standard used (indicate name, compounds included and concentrations)?	☐	☐	☑	
b) Was the %D within control limits?	☐	☐	☑	

Matrix Spike/Matrix Spike Duplicate (MS/MSD)	***YES***	***NO***	***NA***	***COMMENTS***
a) Was MS accuracy criteria met?	☐	☐	☑	
Recovery could not be calculated since sample contained high concentration of analyte?	☐	☐	☑	
b) Was MSD accuracy criteria met?	☐	☐	☑	
Recovery could not be calculated since sample contained high concentration of analyte?	☐	☐	☑	
c) Were MS/MSD precision criteria met?	☐	☐	☑	

Surrogate Spikes	***YES***	***NO***	***NA***	***COMMENTS***
a) Were surrogate recoveries within control limits?	☑	☐	☐	
b) Were surrogate recoveries not calculated due to dilutions?	☐	☐	☑	

Comments/Notes:

QA LEVEL II - ORGANIC DATA EVALUATION CHECKLIST

Data Qualification:

Sample Name	Constituent(s)	Result	Qualifier	Reason
No Qualifiers				

Signature: Justin White Date: 1/12/07

Air Toxics LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

WORK ORDER #: 0612239

Work Order Summary

CLIENT:	Mr. Mark Haddock Golder Associates, Inc. 820 South Main Street Suite 100 St. Charles, MO 63301	**BILL TO:**	Mr. Mark Haddock Golder Associates, Inc. 820 South Main Street Suite 100 St. Charles, MO 63301
PHONE:	(636)-724-9191	**P.O. #**	043-9670
FAX:	(636-724-9323	**PROJECT #**	043-9670 Solutia Soil Vapor Sampling Event
DATE RECEIVED:	12/12/2006	**CONTACT:**	Brandon Dunmore
DATE COMPLETED:	12/29/2006		

FRACTION #	NAME	TEST	RECEIPT VAC./PRES.
01A	SV-8 Village Hall	Modified TO-15 SIM	3.0 "Hg
02A	SV-9 Village Hall	Modified TO-15 SIM	2.5 "Hg
03A	SV-10 Village Hall	Modified TO-15 SIM	2.5 "Hg
04A	Lab Blank	Modified TO-15 SIM	NA
05A	CCV	Modified TO-15 SIM	NA
06A	LCS	Modified TO-15 SIM	NA

CERTIFIED BY: _____ DATE: 12/29/06

Laboratory Director

Certfication numbers: CA NELAP - 02110CA, LA NELAP/LELAP- AI 30763, NJ NELAP - CA004
NY NELAP - 11291, UT NELAP - 9166389892
Name of Accrediting Agency: NELAP/Florida Department of Health, Scope of Application: Clean Air Act,
Accreditation number: E87680, Effective date: 07/01/06, Expiration date: 06/30/07
Air Toxics Ltd. certifies that the test results contained in this report meet all requirements of the NELAC standards

180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 95630
(916) 985-1000 . (800) 985-5955 . FAX (916) 985-1020

LABORATORY NARRATIVE
Modified TO-15 SIM
Golder Associates, Inc.
Workorder# 0612239

Three 6 Liter Summa Special (100% Certified) samples were received on December 12, 2006. The laboratory performed analysis via modified EPA Method TO-15 using GC/MS in the SIM acquisition mode. The method involves concentrating up to 0.5 liters of air. The concentrated aliquot is then flash vaporized and swept through a water management system to remove water vapor. Following dehumidification, the sample passes directly into the GC/MS for analysis.

Method modifications taken to run these samples are summarized in the below table. Specific project requirements may over-ride the ATL modifications.

Requirement	*TO-15*	*ATL Modifications*
ICAL %RSD acceptance criteria	</=30% RSD with 2 compounds allowed out to < 40% RSD	Project specific; default criteria is </=30% RSD with 10% of compounds allowed out to < 40% RSD
Daily Calibration	+- 30% Difference	Project specific; default criteria is </= 30% Difference with 10% of compounds allowed out up to </=40%.; flag and narrate outliers
Blank and standards	Zero air	Nitrogen
Method Detection Limit	Follow 40CFR Pt.136 App. B	The MDL met all relevant requirements in Method TO-15 (statistical MDL less than the LOQ). The concentration of the spiked replicate may have exceeded 10X the calculated MDL in some cases

Receiving Notes

There were no receiving discrepancies.

Analytical Notes

Dilution was performed on sample SV-8 Village Hall due to the presence of high level non-target species.

Definition of Data Qualifying Flags

Eight qualifiers may have been used on the data analysis sheets and indicates as follows:

B - Compound present in laboratory blank greater than reporting limit (background subtraction not performed).
J - Estimated value.
E - Exceeds instrument calibration range.
S - Saturated peak.
Q - Exceeds quality control limits.
U - Compound analyzed for but not detected above the reporting limit.
UJ- Non-detected compound associated with low bias in the CCV
N - The identification is based on presumptive evidence.

File extensions may have been used on the data analysis sheets and indicates as follows:

a-File was requantified

b-File was quantified by a second column and detector

r1-File was requantified for the purpose of reissue

Air Toxics LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Summary of Detected Compounds
MODIFIED EPA METHOD TO-15 GC/MS SIM

Client Sample ID: SV-8 Village Hall

Lab ID#: 0612239-01A

No Detections Were Found.

Client Sample ID: SV-9 Village Hall

Lab ID#: 0612239-02A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Trichloroethene	0.029	2.5	0.16	13

Client Sample ID: SV-10 Village Hall

Lab ID#: 0612239-03A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Trichloroethene	0.029	3.7	0.16	20

Air Toxics LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: SV-8 Village Hall

Lab ID#: 0612239-01A

MODIFIED EPA METHOD TO-15 GC/MS SIM

File Name:	**6122013**	**Date of Collection:**	**12/9/06**
Dil. Factor:	**93.1**	**Date of Analysis:**	**12/20/06 04:58 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Trichloroethene	1.9	Not Detected	10	Not Detected
1,2-Dichloroethane	1.9	Not Detected	7.5	Not Detected
1,2-Dibromoethane (EDB)	1.9	Not Detected	14	Not Detected
1,1,2,2-Tetrachloroethane	1.9	Not Detected	13	Not Detected

Container Type: 6 Liter Summa Special (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	102	70-130
Toluene-d8	101	70-130
4-Bromofluorobenzene	99	70-130

Air Toxics LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: SV-9 Village Hall

Lab ID#: 0612239-02A

MODIFIED EPA METHOD TO-15 GC/MS SIM

File Name:	**6122014**	**Date of Collection: 12/9/06**	
Dil. Factor:	**1.46**	**Date of Analysis: 12/20/06 05:37 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Trichloroethene	0.029	2.5	0.16	13
1,2-Dichloroethane	0.029	Not Detected	0.12	Not Detected
1,2-Dibromoethane (EDB)	0.029	Not Detected	0.22	Not Detected
1,1,2,2-Tetrachloroethane	0.029	Not Detected	0.20	Not Detected

Container Type: 6 Liter Summa Special (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	96	70-130
Toluene-d8	101	70-130
4-Bromofluorobenzene	102	70-130

Air Toxics LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: SV-10 Village Hall

Lab ID#: 0612239-03A

MODIFIED EPA METHOD TO-15 GC/MS SIM

File Name:	**6122015**	**Date of Collection:**	**12/9/06**
Dil. Factor:	**1.46**	**Date of Analysis:**	**12/20/06 06:19 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Trichloroethene	0.029	3.7	0.16	20
1,2-Dichloroethane	0.029	Not Detected	0.12	Not Detected
1,2-Dibromoethane (EDB)	0.029	Not Detected	0.22	Not Detected
1,1,2,2-Tetrachloroethane	0.029	Not Detected	0.20	Not Detected

Container Type: 6 Liter Summa Special (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	97	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	100	70-130

Air Toxics LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: Lab Blank

Lab ID#: 0612239-04A

MODIFIED EPA METHOD TO-15 GC/MS SIM

File Name:	**6122006**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 12/20/06 10:50 AM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Trichloroethene	0.020	Not Detected	0.11	Not Detected
1,2-Dichloroethane	0.020	Not Detected	0.081	Not Detected
1,2-Dibromoethane (EDB)	0.020	Not Detected	0.15	Not Detected
1,1,2,2-Tetrachloroethane	0.020	Not Detected	0.14	Not Detected

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	100	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	112	70-130

Air Toxics LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: CCV

Lab ID#: 0612239-05A

MODIFIED EPA METHOD TO-15 GC/MS SIM

File Name:	**6122003**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 12/20/06 08:43 AM**	

Compound	%Recovery
Trichloroethene	86
1,2-Dichloroethane	84
1,2-Dibromoethane (EDB)	90
1,1,2,2-Tetrachloroethane	74

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	90	70-130
Toluene-d8	97	70-130
4-Bromofluorobenzene	96	70-130

Air Toxics LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: LCS

Lab ID#: 0612239-06A

MODIFIED EPA METHOD TO-15 GC/MS SIM

File Name:	**6122004**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 12/20/06 09:26 AM**	

Compound	%Recovery
Trichloroethene	90
1,2-Dichloroethane	93
1,2-Dibromoethane (EDB)	100
1,1,2,2-Tetrachloroethane	98

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	94	70-130
Toluene-d8	98	70-130
4-Bromofluorobenzene	103	70-130

QA LEVEL II - ORGANIC DATA EVALUATION CHECKLIST

Company Name: Golder Associates
Project Name: Solutia Soil Vapor Sampling Event
Reviewer: J.L.White

Project Manager: M. Haddock
Project Number: 043-9670
Validation Date: 1/12/07

Laboratory: Air Toxics LTD.
Analytical Method (type and no.): TO-15 (modified) Full Scan
Matrix: ☒ Air ☐ Soil/Sed ☐ Water ☐ Waste ☐
Sample Names: SV-8, SV-9, SV-10

SDG #: 0612239B

NOTE: Please provide calculation in Comment areas or on the back (if on the back please indicate in comment areas).

Field Information	YES	NO	NA	COMMENTS
a) Sampling dates noted?	☑	☐	☐	
b) Sampling team indicated?	☑	☐	☐	
c) Sample location noted?	☑	☐	☐	
d) Sample depth indicated ~~(Soils)~~? Air	☑	☐	☐	
e) Sample type indicated (grab/~~composite~~)?	☑	☐	☐	
f) Field QC noted?	☐	☐	☑	
g) Field parameters collected (note types)?	☑	☐	☐	PID
h) Field Calibration within control limits?	☑	☐	☐	
i) Notations of unacceptable field conditions/performances from field logs or field notes?	☐	☑	☐	
j) Does the laboratory narrative indicate deficiencies?	☐	☑	☐	

Note Deficiencies:

Chain-of-Custody (COC)	YES	NO	NA	COMMENTS
a) Was the COC properly completed?	☑	☐	☐	
b) Was the COC signed by both field and laboratory personnel?	☑	☐	☐	
c) Were samples received in good condition?	☑	☐	☐	

General (reference QAPP or Method)	YES	NO	NA	COMMENTS
a) Were hold times met for sample pretreatment?	☑	☐	☐	HT = 14 D
b) Were hold times met for sample analysis?	☑	☐	☐	HT = 10 D
c) Were the correct preservatives used?	☐	☐	☑	
d) Was the correct method used?	☑	☐	☐	
e) Were appropriate reporting limits achieved?	☐	☑	☐	SV-8 high
f) Were any sample dilutions noted?	☐	☑	☐	
g) Were any matrix problems noted?	☑	☐	☐	Surrogate recoveries for 1,2 Dichloroethane-d4 outside control limits in SV-8 due to high Level hydrocarbon matrix interference.

QA LEVEL II - ORGANIC DATA EVALUATION CHECKLIST

Blanks	***YES***	***NO***	***NA***	***COMMENTS***
a) Were analytes detected in the method blank(s)?	☐	☑	☐	
b) Were analytes detected in the field blank(s)?	☐	☐	☑	
c) Were analytes detected in the equipment blank(s)?	☑	☐	☐	See notes, on next page
d) Were analytes detected in the trip blank(s)?	☐	☐	☑	

Laboratory Control Sample (LCS)	***YES***	***NO***	***NA***	***COMMENTS***
a) Was a LCS analyzed once per SDG?	☑	☐	☐	
b) Were the proper compounds included in the LCS?	☑	☐	☐	
c) Was the LCS accuracy criteria met?	☐	☑	☐	cis-1,3-Dichloropropene, Hexachlorobutadiene, Naphthalene outside control limits

Duplicates	***YES***	***NO***	***NA***	***COMMENTS***
a) Were field duplicates collected (note original and duplicate sample names)?	☐	☑	☐	
b) Were field dup. precision criteria met (note RPD)?	☐	☐	☑	
c) Were lab duplicates analyzed (note original and duplicate samples)?	☐	☑	☐	
d) Were lab dup. precision criteria met (note RPD)?	☐	☐	☑	

Blind Standards	***YES***	***NO***	***NA***	***COMMENTS***
a) Was a blind standard used (indicate name, compounds included and concentrations)?	☐	☐	☑	
b) Was the %D within control limits?	☐	☐	☑	

Matrix Spike/Matrix Spike Duplicate (MS/MSD)	***YES***	***NO***	***NA***	***COMMENTS***
a) Was MS accuracy criteria met?	☐	☐	☑	
Recovery could not be calculated since sample contained high concentration of analyte?	☐	☐	☑	
b) Was MSD accuracy criteria met?	☐	☐	☑	
Recovery could not be calculated since sample contained high concentration of analyte?	☐	☐	☑	
c) Were MS/MSD precision criteria met?	☐	☐	☑	

Surrogate Spikes	***YES***	***NO***	***NA***	***COMMENTS***
a) Were surrogate recoveries within control limits?	☐	☑	☐	1,2 Dichloroethane-d4 in SV-8 Recovered at high.
b) Were surrogate recoveries not calculated due to dilutions?	☐	☐	☐	

Comments/Notes:

QA LEVEL II - ORGANIC DATA EVALUATION CHECKLIST

Data Qualification:

Sample Name	Constituent(s)	Result	Qualifier	Reason
SV-8	Acetone		J	Detection in Equip. Blank
	2-Propanol			
	Carbon Disulfide			
	2-Butanone			
SV-9	Ethanol			
	Acetone			
	Carbon Disulfide			
	2-Butanone			
SV-10	Freon 11			
	Ethanol			
	Acetone			
	2-Propanol			
	Carbon Disulfide			
	2-Butanone			

Signature: _____ Date: 1/12/07

Air Toxics LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

WORK ORDER #: 0612239B

Work Order Summary

CLIENT:	Mr. Mark Haddock Golder Associates, Inc. 820 South Main Street Suite 100 St. Charles, MO 63301	**BILL TO:**	Mr. Mark Haddock Golder Associates, Inc. 820 South Main Street Suite 100 St. Charles, MO 63301
PHONE:	(636)-724-9191	**P.O. #**	043-9670
FAX:	(636-724-9323	**PROJECT #**	043-9670 Solutia Soil Vapor Sampling Event
DATE RECEIVED:	12/12/2006	**CONTACT:**	Brandon Dunmore
DATE COMPLETED:	01/09/2007		

FRACTION #	NAME	TEST	RECEIPT VAC./PRES.
01A	SV-8 Village Hall	Modified TO-15	3.0 "Hg
02A	SV-9 Village Hall	Modified TO-15	2.5 "Hg
03A	SV-10 Village Hall	Modified TO-15	2.5 "Hg
04A	Lab Blank	Modified TO-15	NA
05A	CCV	Modified TO-15	NA
06A	LCS	Modified TO-15	NA

CERTIFIED BY: _____ DATE: 01/09/07

Laboratory Director

Certfication numbers: CA NELAP - 02110CA, LA NELAP/LELAP- AI 30763, NJ NELAP - CA004
NY NELAP - 11291, UT NELAP - 9166389892
Name of Accrediting Agency: NELAP/Florida Department of Health, Scope of Application: Clean Air Act,
Accreditation number: E87680, Effective date: 07/01/06, Expiration date: 06/30/07
Air Toxics Ltd. certifies that the test results contained in this report meet all requirements of the NELAC standards

180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 95630
(916) 985-1000 (800) 985-5955 FAX (916) 985-1020

LABORATORY NARRATIVE
Modified TO-15
Golder Associates, Inc.
Workorder# 0612239B

Three 6 Liter Summa Special (100% Certified) samples were received on December 12, 2006. The laboratory performed analysis via modified EPA Method TO-15 using GC/MS in the full scan mode. The method involves concentrating up to 1.0 liter of air. The concentrated aliquot is then flash vaporized and swept through a water management system to remove water vapor. Following dehumidification, the sample passes directly into the GC/MS for analysis.

Method modifications taken to run these samples are summarized in the below table. Specific project requirements may over-ride the ATL modifications.

Requirement	*TO-15*	*ATL Modifications*
ICAL %RSD acceptance criteria	+- 30% RSD with 2 compounds allowed out to < 40% RSD	30% RSD with 4 compounds allowed out to < 40% RSD
Daily Calibration	+- 30% Difference	</= 30% Difference with four allowed out up to </=40%.; flag and narrate outliers
Blank and standards	Zero air	Nitrogen
Method Detection Limit	Follow 40CFR Pt.136 App. B	The MDL met all relevant requirements in Method TO-15 (statistical MDL less than the LOQ). The concentration of the spiked replicate may have exceeded 10X the calculated MDL in some cases
Sample collection media	Summa canister	ATL recommends use of summa canisters to insure data defensibility, but will report results from Tedlar bags at client request

Receiving Notes

There were no receiving discrepancies.

Analytical Notes

The reported CCV/LCS for each daily batch may be derived from more than one analytical file due to the client's request for non-standard compounds.

Non-standard compounds may have different acceptance criteria than the standard TO-14A/TO-15 compound list as per contract or verbal agreement.

All Quality Control Limit failures and affected sample results are noted by flags. Each flag is defined at the bottom of this Case Narrative and on each Sample Result Summary page. Target compound non-detects in the samples that are associated with high bias in QC analyses have not been flagged.

The recovery of surrogate 1,2-Dichloroethane-d4 in sample SV-8 Village Hall was outside control limits due to high level hydrocarbon matrix interference. Data is reported as qualified.

The reported result for Cumene in sample SV-9 Village Hall may be biased high due to co-elution with a non target compound with similar characteristic ions.

Definition of Data Qualifying Flags

Eight qualifiers may have been used on the data analysis sheets and indicates as follows:

B - Compound present in laboratory blank greater than reporting limit (background subtraction not performed).

J - Estimated value.

E - Exceeds instrument calibration range.

S - Saturated peak.

Q - Exceeds quality control limits.

U - Compound analyzed for but not detected above the reporting limit.

UJ- Non-detected compound associated with low bias in the CCV

N - The identification is based on presumptive evidence.

File extensions may have been used on the data analysis sheets and indicates as follows:

a-File was requantified

b-File was quantified by a second column and detector

r1-File was requantified for the purpose of reissue

Air Toxics LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Summary of Detected Compounds
MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

Client Sample ID: SV-8 Village Hall

Lab ID#: 0612239B-01A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Chloromethane	0.50	0.54	1.0	1.1
Vinyl Chloride	0.50	0.51	1.3	1.3
1,3-Butadiene	0.50	1.3	1.1	3.0
Ethanol	2.5	35	4.7	66
Acetone	2.5	37 J	5.9	88
2-Propanol	2.5	2.8 J	6.1	7.0
Carbon Disulfide	2.5	8.9 J	7.7	28
Methylene Chloride	0.99	44	3.4	150
Hexane	0.50	140	1.8	510
2-Butanone (Methyl Ethyl Ketone)	0.50	9.9 J	1.5	29
Cyclohexane	0.50	160	1.7	560
Benzene	0.50	4.8	1.6	15
Heptane	0.50	18	2.0	72
Toluene	0.50	35	1.9	130
Tetrachloroethene	0.50	0.91	3.4	6.2
Chlorobenzene	0.50	140	2.3	630
Ethyl Benzene	0.50	2.9	2.2	13
m,p-Xylene	0.50	6.0	2.2	26
o-Xylene	0.50	2.9	2.2	13
Styrene	0.50	0.64	2.1	2.7
Cumene	0.50	1.4	2.4	7.1
Propylbenzene	0.50	0.79	2.4	3.9
4-Ethyltoluene	0.50	1.3	2.4	6.5
1,3,5-Trimethylbenzene	0.50	0.83	2.4	4.1
1,2,4-Trimethylbenzene	0.50	2.8	2.4	14
1,3-Dichlorobenzene	0.50	1.5	3.0	8.9
1,4-Dichlorobenzene	0.50	7.5	3.0	45
1,2-Dichlorobenzene	0.50	0.61	3.0	3.6

Client Sample ID: SV-9 Village Hall

Lab ID#: 0612239B-02A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Freon 12	0.15	0.48	0.72	2.4
Chloromethane	0.15	0.44	0.30	0.92
1,3-Butadiene	0.15	4.3	0.32	9.6
Freon 11	0.15	0.28	0.82	1.6

Air Toxics LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Summary of Detected Compounds
MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

Client Sample ID: SV-9 Village Hall

Lab ID#: 0612239B-02A

Ethanol	0.73	2.1 J+	1.4	3.9
Acetone	0.73	43 J+	1.7	100
Carbon Disulfide	0.73	5.6 J+	2.3	18
Methylene Chloride	0.29	1.7	1.0	5.8
Hexane	0.15	9.4	0.51	33
2-Butanone (Methyl Ethyl Ketone)	0.15	7.9 J	0.43	23
Cyclohexane	0.15	3.8	0.50	13
Benzene	0.15	7.6	0.47	24
Heptane	0.15	5.0	0.60	20
Toluene	0.15	21	0.55	80
Tetrachloroethene	0.15	1.2	0.99	8.0
Chlorobenzene	0.15	0.28	0.67	1.3
Ethyl Benzene	0.15	2.9	0.63	12
m,p-Xylene	0.15	9.7	0.63	42
o-Xylene	0.15	3.3	0.63	14
Styrene	0.15	0.66	0.62	2.8
Cumene	0.15	0.40	0.72	2.0
Propylbenzene	0.15	0.47	0.72	2.3
4-Ethyltoluene	0.15	2.1	0.72	10
1,3,5-Trimethylbenzene	0.15	1.0	0.72	5.0
1,2,4-Trimethylbenzene	0.15	3.2	0.72	16
1,4-Dichlorobenzene	0.15	0.16	0.88	0.94
1,2-Dichlorobenzene	0.15	0.44	0.88	2.7

Client Sample ID: SV-10 Village Hall

Lab ID#: 0612239B-03A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Freon 12	0.15	0.56	0.72	2.8
Chloromethane	0.15	0.41	0.30	0.84
1,3-Butadiene	0.15	3.8	0.32	8.4
Freon 11	0.15	0.38 J	0.82	2.1
Ethanol	0.73	4.2 J	1.4	7.9
Freon 113	0.15	0.15	1.1	1.2
Acetone	0.73	39 J+	1.7	92
2-Propanol	0.73	0.93 J+	1.8	2.3
Carbon Disulfide	0.73	7.1 J+	2.3	22
Methylene Chloride	0.29	1.7	1.0	5.9
Hexane	0.15	6.0	0.51	21

Air Toxics LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Summary of Detected Compounds
MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

Client Sample ID: SV-10 Village Hall

Lab ID#: 0612239B-03A

2-Butanone (Methyl Ethyl Ketone)	0.15	3.6 J	0.43	11
Cyclohexane	0.15	1.0	0.50	3.6
Carbon Tetrachloride	0.15	0.15 J	0.92	0.96 J
Benzene	0.15	7.4	0.47	24
Heptane	0.15	5.5	0.60	22
Toluene	0.15	23	0.55	86
Tetrachloroethene	0.15	1.6	0.99	11
Ethyl Benzene	0.15	2.5	0.63	11
m,p-Xylene	0.15	8.9	0.63	39
o-Xylene	0.15	3.0	0.63	13
Styrene	0.15	0.65	0.62	2.8
Cumene	0.15	0.29	0.72	1.4
Propylbenzene	0.15	0.56	0.72	2.7
4-Ethyltoluene	0.15	2.7	0.72	13
1,3,5-Trimethylbenzene	0.15	0.86	0.72	4.2
1,2,4-Trimethylbenzene	0.15	3.2	0.72	16

Air Toxics LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: SV-8 Village Hall

Lab ID#: 0612239B-01A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	7122917	Date of Collection:	12/9/06
Dil. Factor:	4.97	Date of Analysis:	12/30/06 03:39 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Freon 12	0 50	Not Detected	2 4	Not Detected
Freon 114	0 50	Not Detected	3.5	Not Detected
Chloromethane	0 50	0.54	1 0	1 1
Vinyl Chloride	0 50	0.51	1.3	1 3
1,3-Butadiene	0.50	1.3	1.1	3.0
Bromomethane	0.50	Not Detected	1 9	Not Detected
Chloroethane	0 50	Not Detected	1 3	Not Detected
Freon 11	0.50	Not Detected	2.8	Not Detected
Ethanol	2.5	35	4.7	66
Freon 113	0.50	Not Detected	3.8	Not Detected
1,1-Dichloroethene	0.50	Not Detected	2 0	Not Detected
Acetone	2 5	37	5 9	88
2-Propanol	2 5	2.8	6 1	7 0
Carbon Disulfide	2 5	8 9	7 7	28
Methylene Chloride	0 99	44	3 4	150
Methyl tert-butyl ether	0 50	Not Detected	1 8	Not Detected
trans-1,2-Dichloroethene	0 50	Not Detected	2 0	Not Detected
Hexane	0 50	140	1 8	510
1,1-Dichloroethane	0 50	Not Detected	2 0	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.50	9.9	1.5	29
cis-1,2-Dichloroethene	0 50	Not Detected	2 0	Not Detected
Tetrahydrofuran	2 5	Not Detected	7 3	Not Detected
Chloroform	0 50	Not Detected	2 4	Not Detected
1,1,1-Trichloroethane	0 50	Not Detected	2 7	Not Detected
Cyclohexane	0.50	160	1.7	560
Carbon Tetrachloride	0 50	Not Detected	3 1	Not Detected
Benzene	0 50	4 8	1 6	15
Heptane	0 50	18	2 0	72
1,2-Dichloropropane	0 50	Not Detected	2 3	Not Detected
1,4-Dioxane	0 50	Not Detected	1 8	Not Detected
Bromodichloromethane	0 50	Not Detected	3 3	Not Detected
cis-1,3-Dichloropropene	0.50	Not Detected	2 2	Not Detected
4-Methyl-2-pentanone	0 50	Not Detected	2 0	Not Detected
Toluene	0 50	35	1 9	130
trans-1,3-Dichloropropene	0.50	Not Detected	2.2	Not Detected
1,1,2-Trichloroethane	0 50	Not Detected	2 7	Not Detected
Tetrachloroethene	0 50	0 91	3 4	6 2
2-Hexanone	2 5	Not Detected	10	Not Detected
Dibromochloromethane	0 50	Not Detected	4 2	Not Detected

Air Toxics LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: SV-8 Village Hall

Lab ID#: 0612239B-01A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	7122917	Date of Collection:	12/9/06
Dil. Factor:	4.97	Date of Analysis:	12/30/06 03:39 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Chlorobenzene	0.50	140	2.3	630
Ethyl Benzene	0.50	2.9	2.2	13
m,p-Xylene	0.50	6.0	2.2	26
o-Xylene	0.50	2.9	2.2	13
Styrene	0.50	0.64	2.1	2.7
Bromoform	0.50	Not Detected	5.1	Not Detected
Cumene	0.50	1.4	2.4	7.1
Propylbenzene	0.50	0.79	2.4	3.9
4-Ethyltoluene	0.50	1.3	2.4	6.5
1,3,5-Trimethylbenzene	0.50	0.83	2.4	4.1
1,2,4-Trimethylbenzene	0.50	2.8	2.4	14
1,3-Dichlorobenzene	0.50	1.5	3.0	8.9
1,4-Dichlorobenzene	0.50	7.5	3.0	45
alpha-Chlorotoluene	0.50	Not Detected	2.6	Not Detected
1,2-Dichlorobenzene	0.50	0.61	3.0	3.6
1,2,4-Trichlorobenzene	2.5	Not Detected	18	Not Detected
Hexachlorobutadiene	2.5	Not Detected	26	Not Detected
Naphthalene	2.5	Not Detected	13	Not Detected
1,1,1,2-Tetrachloroethane	2.5	Not Detected	17	Not Detected
1,2,3-Trichloropropane	2.5	Not Detected	15	Not Detected
Acetonitrile	2.5	Not Detected	4.2	Not Detected
Butylbenzene	2.5	Not Detected	14	Not Detected
Dibromomethane	2.5	Not Detected	18	Not Detected
Ethyl Acetate	2.5	Not Detected	9.0	Not Detected
sec-Butylbenzene	2.5	Not Detected	14	Not Detected
Vinyl Acetate	9.9	Not Detected	35	Not Detected

Q = Exceeds Quality Control limits of 70% to 130%, due to matrix effects

Container Type: 6 Liter Summa Special (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	228 Q	70-130
Toluene-d8	101	70-130
4-Bromofluorobenzene	98	70-130

Air Toxics LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: SV-9 Village Hall

Lab ID#: 0612239B-02A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	7122918	Date of Collection:	12/9/06
Dil. Factor:	1.46	Date of Analysis:	12/30/06 04:40 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Freon 12	0.15	0.48	0.72	2.4
Freon 114	0.15	Not Detected	1.0	Not Detected
Chloromethane	0.15	0.44	0.30	0.92
Vinyl Chloride	0.15	Not Detected	0.37	Not Detected
1,3-Butadiene	0.15	4.3	0.32	9.6
Bromomethane	0.15	Not Detected	0.57	Not Detected
Chloroethane	0.15	Not Detected	0.38	Not Detected
Freon 11	0.15	0.28	0.82	1.6
Ethanol	0.73	2.1	1.4	3.9
Freon 113	0.15	Not Detected	1.1	Not Detected
1,1-Dichloroethene	0.15	Not Detected	0.58	Not Detected
Acetone	0.73	43	1.7	100
2-Propanol	0.73	Not Detected	1.8	Not Detected
Carbon Disulfide	0.73	5.6	2.3	18
Methylene Chloride	0.29	1.7	1.0	5.8
Methyl tert-butyl ether	0.15	Not Detected	0.53	Not Detected
trans-1,2-Dichloroethene	0.15	Not Detected	0.58	Not Detected
Hexane	0.15	9.4	0.51	33
1,1-Dichloroethane	0.15	Not Detected	0.59	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.15	7.9	0.43	23
cis-1,2-Dichloroethene	0.15	Not Detected	0.58	Not Detected
Tetrahydrofuran	0.73	Not Detected	2.2	Not Detected
Chloroform	0.15	Not Detected	0.71	Not Detected
1,1,1-Trichloroethane	0.15	Not Detected	0.80	Not Detected
Cyclohexane	0.15	3.8	0.50	13
Carbon Tetrachloride	0.15	Not Detected	0.92	Not Detected
Benzene	0.15	7.6	0.47	24
Heptane	0.15	5.0	0.60	20
1,2-Dichloropropane	0.15	Not Detected	0.67	Not Detected
1,4-Dioxane	0.15	Not Detected	0.53	Not Detected
Bromodichloromethane	0.15	Not Detected	0.98	Not Detected
cis-1,3-Dichloropropene	0.15	Not Detected	0.66	Not Detected
4-Methyl-2-pentanone	0.15	Not Detected	0.60	Not Detected
Toluene	0.15	21	0.55	80
trans-1,3-Dichloropropene	0.15	Not Detected	0.66	Not Detected
1,1,2-Trichloroethane	0.15	Not Detected	0.80	Not Detected
Tetrachloroethene	0.15	1.2	0.99	8.0
2-Hexanone	0.73	Not Detected	3.0	Not Detected
Dibromochloromethane	0.15	Not Detected	1.2	Not Detected

Air Toxics LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: SV-9 Village Hall

Lab ID#: 0612239B-02A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	7122918	Date of Collection:	12/9/06
Dil. Factor:	1.46	Date of Analysis:	12/30/06 04:40 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Chlorobenzene	0 15	0.28	0 67	1.3
Ethyl Benzene	0 15	2.9	0 63	12
m,p-Xylene	0 15	9.7	0 63	42
o-Xylene	0 15	3.3	0 63	14
Styrene	0.15	0.66	0.62	2.8
Bromoform	0 15	Not Detected	1 5	Not Detected
Cumene	0.15	0 40	0 72	2 0
Propylbenzene	0.15	0.47	0 72	2 3
4-Ethyltoluene	0.15	2 1	0 72	10
1,3,5-Trimethylbenzene	0.15	1.0	0.72	5.0
1,2,4-Trimethylbenzene	0 15	3.2	0 72	16
1,3-Dichlorobenzene	0 15	Not Detected	0 88	Not Detected
1,4-Dichlorobenzene	0 15	0.16	0 88	0.94
alpha-Chlorotoluene	0 15	Not Detected	0 76	Not Detected
1,2-Dichlorobenzene	0.15	0.44	0.88	2.7
1,2,4-Trichlorobenzene	0.73	Not Detected	5 4	Not Detected
Hexachlorobutadiene	0 73	Not Detected	7.8	Not Detected
Naphthalene	0 73	Not Detected	3 8	Not Detected
1,1,1,2-Tetrachloroethane	0.73	Not Detected	5 0	Not Detected
1,2,3-Trichloropropane	0.73	Not Detected	4.4	Not Detected
Acetonitrile	0.73	Not Detected	1 2	Not Detected
Butylbenzene	0.73	Not Detected	4.0	Not Detected
Dibromomethane	0 73	Not Detected	5 2	Not Detected
Ethyl Acetate	0 73	Not Detected	2 6	Not Detected
sec-Butylbenzene	0.73	Not Detected	4.0	Not Detected
Vinyl Acetate	2 9	Not Detected	10	Not Detected

Container Type: 6 Liter Summa Special (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	113	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	99	70-130

Air Toxics LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: SV-10 Village Hall

Lab ID#: 0612239B-03A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	7122919	Date of Collection:	12/9/06
Dil. Factor:	1.46	Date of Analysis:	12/30/06 05:41 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Freon 12	0.15	0.56	0.72	2.8
Freon 114	0.15	Not Detected	1.0	Not Detected
Chloromethane	0.15	0.41	0.30	0.84
Vinyl Chloride	0.15	Not Detected	0.37	Not Detected
1,3-Butadiene	0.15	3.8	0.32	8.4
Bromomethane	0.15	Not Detected	0.57	Not Detected
Chloroethane	0.15	Not Detected	0.38	Not Detected
Freon 11	0.15	0.38	0.82	2.1
Ethanol	0.73	4.2	1.4	7.9
Freon 113	0.15	0.15	1.1	1.2
1,1-Dichloroethene	0.15	Not Detected	0.58	Not Detected
Acetone	0.73	39	1.7	92
2-Propanol	0.73	0.93	1.8	2.3
Carbon Disulfide	0.73	7.1	2.3	22
Methylene Chloride	0.29	1.7	1.0	5.9
Methyl tert-butyl ether	0.15	Not Detected	0.53	Not Detected
trans-1,2-Dichloroethene	0.15	Not Detected	0.58	Not Detected
Hexane	0.15	6.0	0.51	21
1,1-Dichloroethane	0.15	Not Detected	0.59	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.15	3.6	0.43	11
cis-1,2-Dichloroethene	0.15	Not Detected	0.58	Not Detected
Tetrahydrofuran	0.73	Not Detected	2.2	Not Detected
Chloroform	0.15	Not Detected	0.71	Not Detected
1,1,1-Trichloroethane	0.15	Not Detected	0.80	Not Detected
Cyclohexane	0.15	1.0	0.50	3.6
Carbon Tetrachloride	0.15	0.15 J	0.92	0.96 J
Benzene	0.15	7.4	0.47	24
Heptane	0.15	5.5	0.60	22
1,2-Dichloropropane	0.15	Not Detected	0.67	Not Detected
1,4-Dioxane	0.15	Not Detected	0.53	Not Detected
Bromodichloromethane	0.15	Not Detected	0.98	Not Detected
cis-1,3-Dichloropropene	0.15	Not Detected	0.66	Not Detected
4-Methyl-2-pentanone	0.15	Not Detected	0.60	Not Detected
Toluene	0.15	23	0.55	86
trans-1,3-Dichloropropene	0.15	Not Detected	0.66	Not Detected
1,1,2-Trichloroethane	0.15	Not Detected	0.80	Not Detected
Tetrachloroethene	0.15	1.6	0.99	11
2-Hexanone	0.73	Not Detected	3.0	Not Detected
Dibromochloromethane	0.15	Not Detected	1.2	Not Detected

Air Toxics LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: SV-10 Village Hall

Lab ID#: 0612239B-03A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	7122919	Date of Collection:	12/9/06
Dil. Factor:	1.46	Date of Analysis:	12/30/06 05:41 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Chlorobenzene	0.15	Not Detected	0.67	Not Detected
Ethyl Benzene	0.15	2.5	0.63	11
m,p-Xylene	0.15	8.9	0.63	39
o-Xylene	0.15	3.0	0.63	13
Styrene	0.15	0.65	0.62	2.8
Bromoform	0.15	Not Detected	1.5	Not Detected
Cumene	0.15	0.29	0.72	1.4
Propylbenzene	0.15	0.56	0.72	2.7
4-Ethyltoluene	0.15	2.7	0.72	13
1,3,5-Trimethylbenzene	0.15	0.86	0.72	4.2
1,2,4-Trimethylbenzene	0.15	3.2	0.72	16
1,3-Dichlorobenzene	0.15	Not Detected	0.88	Not Detected
1,4-Dichlorobenzene	0.15	Not Detected	0.88	Not Detected
alpha-Chlorotoluene	0.15	Not Detected	0.76	Not Detected
1,2-Dichlorobenzene	0.15	Not Detected	0.88	Not Detected
1,2,4-Trichlorobenzene	0.73	Not Detected	5.4	Not Detected
Hexachlorobutadiene	0.73	Not Detected	7.8	Not Detected
Naphthalene	0.73	Not Detected	3.8	Not Detected
1,1,1,2-Tetrachloroethane	0.73	Not Detected	5.0	Not Detected
1,2,3-Trichloropropane	0.73	Not Detected	4.4	Not Detected
Acetonitrile	0.73	Not Detected	1.2	Not Detected
Butylbenzene	0.73	Not Detected	4.0	Not Detected
Dibromomethane	0.73	Not Detected	5.2	Not Detected
Ethyl Acetate	0.73	Not Detected	2.6	Not Detected
sec-Butylbenzene	0.73	Not Detected	4.0	Not Detected
Vinyl Acetate	2.9	Not Detected	10	Not Detected

J = Estimated value due to bias in the CCV.

Container Type: 6 Liter Summa Special (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	114	70-130
Toluene-d8	99	70-130
4-Bromofluorobenzene	97	70-130

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: Lab Blank

Lab ID#: 0612239B-04A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	7122916	Date of Collection: NA	
Dil. Factor:	1.00	Date of Analysis: 12/30/06 02:44 AM	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Freon 12	0 10	Not Detected	0 49	Not Detected
Freon 114	0.10	Not Detected	0.70	Not Detected
Chloromethane	0 10	Not Detected	0 21	Not Detected
Vinyl Chloride	0 10	Not Detected	0 26	Not Detected
1,3-Butadiene	0.10	Not Detected	0.22	Not Detected
Bromomethane	0 10	Not Detected	0 39	Not Detected
Chloroethane	0 10	Not Detected	0 26	Not Detected
Freon 11	0 10	Not Detected	0 56	Not Detected
Ethanol	0 50	Not Detected	0 94	Not Detected
Freon 113	0.10	Not Detected	0.77	Not Detected
1,1-Dichloroethene	0 10	Not Detected	0 40	Not Detected
Acetone	0.50	Not Detected	1.2	Not Detected
2-Propanol	0.50	Not Detected	1.2	Not Detected
Carbon Disulfide	0.50	Not Detected	1 6	Not Detected
Methylene Chloride	0.20	Not Detected	0.69	Not Detected
Methyl tert-butyl ether	0.10	Not Detected	0.36	Not Detected
trans-1,2-Dichloroethene	0 10	Not Detected	0.40	Not Detected
Hexane	0.10	Not Detected	0 35	Not Detected
1,1-Dichloroethane	0 10	Not Detected	0 40	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.10	Not Detected	0.29	Not Detected
cis-1,2-Dichloroethene	0 10	Not Detected	0 40	Not Detected
Tetrahydrofuran	0 50	Not Detected	1 5	Not Detected
Chloroform	0 10	Not Detected	0 49	Not Detected
1,1,1-Trichloroethane	0 10	Not Detected	0 54	Not Detected
Cyclohexane	0.10	Not Detected	0.34	Not Detected
Carbon Tetrachloride	0 10	Not Detected	0 63	Not Detected
Benzene	0.10	Not Detected	0 32	Not Detected
Heptane	0.10	Not Detected	0 41	Not Detected
1,2-Dichloropropane	0 10	Not Detected	0 46	Not Detected
1,4-Dioxane	0.10	Not Detected	0.36	Not Detected
Bromodichloromethane	0 10	Not Detected	0 67	Not Detected
cis-1,3-Dichloropropene	0 10	Not Detected	0 45	Not Detected
4-Methyl-2-pentanone	0 10	Not Detected	0 41	Not Detected
Toluene	0 10	Not Detected	0 38	Not Detected
trans-1,3-Dichloropropene	0.10	Not Detected	0.45	Not Detected
1,1,2-Trichloroethane	0 10	Not Detected	0 54	Not Detected
Tetrachloroethene	0 10	Not Detected	0 68	Not Detected
2-Hexanone	0 50	Not Detected	2 0	Not Detected
Dibromochloromethane	0 10	Not Detected	0 85	Not Detected

Air Toxics LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: Lab Blank

Lab ID#: 0612239B-04A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	7122916	Date of Collection: NA	
Dil. Factor:	1.00	Date of Analysis: 12/30/06 02:44 AM	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (uG/m3)	Amount (uG/m3)
Chlorobenzene	0.10	Not Detected	0.46	Not Detected
Ethyl Benzene	0.10	Not Detected	0.43	Not Detected
m,p-Xylene	0.10	Not Detected	0.43	Not Detected
o-Xylene	0.10	Not Detected	0.43	Not Detected
Styrene	0.10	Not Detected	0.42	Not Detected
Bromoform	0.10	Not Detected	1.0	Not Detected
Cumene	0.10	Not Detected	0.49	Not Detected
Propylbenzene	0.10	Not Detected	0.49	Not Detected
4-Ethyltoluene	0.10	Not Detected	0.49	Not Detected
1,3,5-Trimethylbenzene	0.10	Not Detected	0.49	Not Detected
1,2,4-Trimethylbenzene	0.10	Not Detected	0.49	Not Detected
1,3-Dichlorobenzene	0.10	Not Detected	0.60	Not Detected
1,4-Dichlorobenzene	0.10	Not Detected	0.60	Not Detected
alpha-Chlorotoluene	0.10	Not Detected	0.52	Not Detected
1,2-Dichlorobenzene	0.10	Not Detected	0.60	Not Detected
1,2,4-Trichlorobenzene	0.50	Not Detected	3.7	Not Detected
Hexachlorobutadiene	0.50	Not Detected	5.3	Not Detected
Naphthalene	0.50	Not Detected	2.6	Not Detected
1,1,1,2-Tetrachloroethane	0.50	Not Detected	3.4	Not Detected
1,2,3-Trichloropropane	0.50	Not Detected	3.0	Not Detected
Acetonitrile	0.50	Not Detected	0.84	Not Detected
Butylbenzene	0.50	Not Detected	2.7	Not Detected
Dibromomethane	0.50	Not Detected	3.6	Not Detected
Ethyl Acetate	0.50	Not Detected	1.8	Not Detected
sec-Butylbenzene	0.50	Not Detected	2.7	Not Detected
Vinyl Acetate	2.0	Not Detected	7.0	Not Detected

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	114	70-130
Toluene-d8	99	70-130
4-Bromofluorobenzene	99	70-130

Air Toxics LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: CCV

Lab ID#: 0612239B-05A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	7122902	Date of Collection: NA	
Dil. Factor:	1.00	Date of Analysis: 12/29/06 11:28 AM	

Compound	%Recovery
Freon 12	116
Freon 114	98
Chloromethane	99
Vinyl Chloride	110
1,3-Butadiene	103
Bromomethane	109
Chloroethane	112
Freon 11	117
Ethanol	100
Freon 113	117
1,1-Dichloroethene	114
Acetone	107
2-Propanol	102
Carbon Disulfide	109
Methylene Chloride	104
Methyl tert-butyl ether	121
trans-1,2-Dichloroethene	109
Hexane	101
1,1-Dichloroethane	109
2-Butanone (Methyl Ethyl Ketone)	95
cis-1,2-Dichloroethene	108
Tetrahydrofuran	94
Chloroform	122
1,1,1-Trichloroethane	129
Cyclohexane	107
Carbon Tetrachloride	133 Q
Benzene	103
Heptane	100
1,2-Dichloropropane	101
1,4-Dioxane	108
Bromodichloromethane	122
cis-1,3-Dichloropropene	113
4-Methyl-2-pentanone	104
Toluene	107
trans-1,3-Dichloropropene	122
1,1,2-Trichloroethane	110
Tetrachloroethene	109
2-Hexanone	105
Dibromochloromethane	122

Air Toxics LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: CCV

Lab ID#: 0612239B-05A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	7122902	Date of Collection: NA	
Dil. Factor:	1.00	Date of Analysis: 12/29/06 11:28 AM	

Compound	%Recovery
Chlorobenzene	105
Ethyl Benzene	108
m,p-Xylene	99
o-Xylene	106
Styrene	102
Bromoform	122
Cumene	105
Propylbenzene	102
4-Ethyltoluene	100
1,3,5-Trimethylbenzene	107
1,2,4-Trimethylbenzene	107
1,3-Dichlorobenzene	103
1,4-Dichlorobenzene	102
alpha-Chlorotoluene	102
1,2-Dichlorobenzene	104
1,2,4-Trichlorobenzene	125
Hexachlorobutadiene	151 Q
Naphthalene	143 Q
1,1,1,2-Tetrachloroethane	100
1,2,3-Trichloropropane	99
Acetonitrile	90
Butylbenzene	104
Dibromomethane	94
Ethyl Acetate	94
sec-Butylbenzene	103
Vinyl Acetate	104

Q = Exceeds Quality Control limits

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	119	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	102	70-130

Air Toxics LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: LCS

Lab ID#: 0612239B-06A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	7122906	Date of Collection: NA	
Dil. Factor:	1.00	Date of Analysis: 12/29/06 03:33 PM	

Compound	%Recovery
Freon 12	110
Freon 114	90
Chloromethane	93
Vinyl Chloride	102
1,3-Butadiene	110
Bromomethane	102
Chloroethane	80
Freon 11	130
Ethanol	105
Freon 113	110
1,1-Dichloroethene	107
Acetone	113
2-Propanol	105
Carbon Disulfide	114
Methylene Chloride	98
Methyl tert-butyl ether	72
trans-1,2-Dichloroethene	114
Hexane	103
1,1-Dichloroethane	101
2-Butanone (Methyl Ethyl Ketone)	98
cis-1,2-Dichloroethene	101
Tetrahydrofuran	97
Chloroform	113
1,1,1-Trichloroethane	119
Cyclohexane	108
Carbon Tetrachloride	123
Benzene	98
Heptane	101
1,2-Dichloropropane	96
1,4-Dioxane	115
Bromodichloromethane	124
cis-1,3-Dichloropropene	68 Q
4-Methyl-2-pentanone	102
Toluene	101
trans-1,3-Dichloropropene	104
1,1,2-Trichloroethane	105
Tetrachloroethene	108
2-Hexanone	98
Dibromochloromethane	115

Air Toxics LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

Client Sample ID: LCS

Lab ID#: 0612239B-06A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	7122906	Date of Collection: NA	
Dil. Factor:	1.00	Date of Analysis: 12/29/06 03:33 PM	

Compound	%Recovery
Chlorobenzene	103
Ethyl Benzene	109
m,p-Xylene	90
o-Xylene	89
Styrene	96
Bromoform	93
Cumene	110
Propylbenzene	110
4-Ethyltoluene	111
1,3,5-Trimethylbenzene	89
1,2,4-Trimethylbenzene	74
1,3-Dichlorobenzene	106
1,4-Dichlorobenzene	106
alpha-Chlorotoluene	121
1,2-Dichlorobenzene	108
1,2,4-Trichlorobenzene	111
Hexachlorobutadiene	140 Q
Naphthalene	161 Q
1,1,1,2-Tetrachloroethane	Not Spiked
1,2,3-Trichloropropane	Not Spiked
Acetonitrile	Not Spiked
Butylbenzene	Not Spiked
Dibromomethane	Not Spiked
Ethyl Acetate	Not Spiked
sec-Butylbenzene	Not Spiked
Vinyl Acetate	101

Q = Exceeds Quality Control limits

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	117	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	103	70-130